Research Projects from Start to Finish

An Introductory Guide to Conducting Research in Myanmar

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Educasia
Education in Context

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Introduction

This guide aims to provide a practical introduction to the main concepts and techniques for doing research and, at the same time, help users develop the skills needed to carry out their own community research projects. It is designed for learners with no prior research experience, but it can also be used as a basic reference book for people who have done some research before.

Who is this guide for?

This guide is mainly intended for:

- Young community leaders in Myanmar
- Teachers in community schools
- Independent learners (doing self-study)
- Students preparing to do a research project and write a research report or thesis
- Community-based organizations who want to use it with their beneficiaries or staff for capacity-building.

What is in this guide?

This guide includes:

- 14 chapters of content including vocabulary and activities
- Learning outcomes for each chapter
- Suggested reading or resources for further study at the end of certain chapters
- Templates that can be used for real-life research projects
- An answer key explaining the answers to the activities
- A glossary explaining key terms used in the guide
- A complete reference list that can be referred to for further information.

What makes this guide unique?

- This guide was specifically designed for young adults in Myanmar, keeping in mind their specific needs, context and learning environments.
- The activities can be done individually or in groups or pairs, as appropriate, and do not require additional resources (though some do require an internet connection).
- Technical terms are explained in simple language and the text is written in upper-intermediate English.
- It is a practical guide that is much shorter than most available textbooks.

How to Use This Guide

For people who have never done research before, we advise you to read the whole guide and do most of the activities before starting your own research. The chapters in the guide follow the order of the steps of the research process, so it is best to follow the order of the guide from start to finish. However, it is a good idea to have an idea for a research project in mind while you read so that you can imagine how the steps might be carried out in a practical way.

For teachers using the guide as a teaching resource, you can either use it as a reference book and simplify the content further, or use it as a core textbook, supplementing it with more examples and exercises as you wish. The *Further reading* sections will be of particular use to you, and for activities with multiple possible answers we encourage you to investigate some possible answers and discussion points.

	This icon represents activities that can be done either in class or independently.
	This icon points to the further reading section available at the end of certain chapters.
	When you see this icon, individual learners can *think* or *brainstorm* and groups or pairs can *discuss*.
	This icon is next to the vocabulary keys.
	This icon means that there is something important for you to know.
	This icon is next to the learning outcomes for each chapter.

Limitations of this guide

This guide is a practical, basic introduction to carrying out small research projects. If you are going to do a research project in your community or any other community, it is a good idea to get additional support and guidance from an experienced researcher and/or relevant experts, especially if you plan to work with vulnerable people such as children, victims of violence, or people with disabilities or health concerns.

This guide is not a comprehensive manual.

1 What is Research?

By the end of this chapter, you should be able to:

- Define different types of research.
- Explain the benefits of research.

- **Data:** information that you collect for your research project
- **Theory:** a collection of ideas that try to explain something
- **Evidence:** the available information or facts that show that a belief or theory is true (valid)

"Research" is a term commonly used to describe *finding new information*. Most of us do some sort of informal research in our day-to-day activities. You might browse the internet for reviews of a product you are interested in buying, or if you are applying for a job you might try to find out more information about the hiring organization or company. You then judge (analyze) the information you find, and make a particular decision based on that information (e.g., which product to buy or avoid, what questions to ask in your job interview). We don't normally plan informal research—we just do it.

Formal research, on the other hand, is more organized. Usually, it is a systematic process of finding new knowledge to answer a specific question. We follow a plan to try to make sure our information is true and correct—you will learn more about how to make such a plan in the following chapters. Formal research is about making a small, specific, and original (new) contribution to what we know about the world.

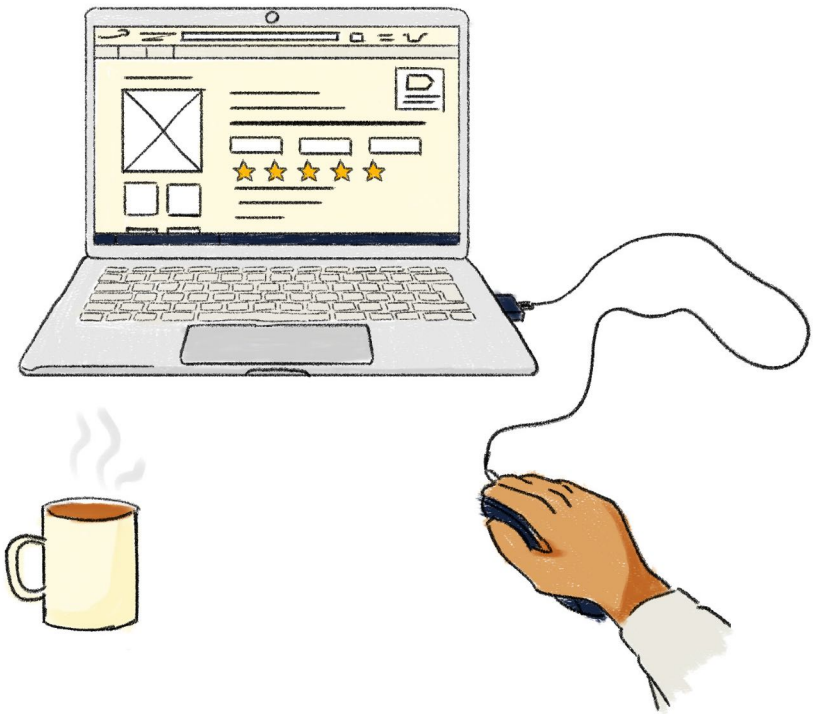
Can you think of an example of informal research that you have done?

Have you ever done formal research before?

Desk research (also known as secondary research) is finding, compiling, summarizing, and analyzing data that already exists. It is typically done on a computer at a desk, hence the name. For example, in her 2016 paper, *The Myanmar elections 2015: Why the National League for Democracy won a landslide victo*ry, author Ardeth Thawnghmung reviews and analyzes previous research papers and news articles to create her own explanation of why the National League for Democracy won so many votes in 2015. **Primary research** is when new, original data is collected directly by you, the researcher. This research guide is a guide to doing primary research, and you will find many examples of primary research studies throughout the chapters.

Why do we do research?

Research is carried out by many different types of people for different reasons, but the aim is almost always to increase understanding and then use this understanding to make good decisions and find solutions. When people take action without researching, it can lead to unwanted results. For example, if someone wants to open a business but they do not research the costs of starting up or they do not research to see if people would be interested in buying their product (i.e. don't do informal research), they may end up losing money. Or if the government decides to ban vegetable imports so that local farmers do not have to compete with international producers, but no research is done to see if local farmers can produce enough vegetables for the population (i.e., don't do formal research), there could be vegetable shortages and price increases, affecting people's ability to eat a healthy diet. In other cases, research is important because it builds on what we already know about the world, which may contribute to solutions in the future.



In general, we can differentiate between basic research and applied research. **Basic research** is done simply because we want to know more. It aims to test or further explain an existing theory and is most often done by academics. **Applied research** is done because we want to use the new knowledge we find in a practical way. We might have a specific problem in mind that we want to help solve. For example, consider the question "What effects has the Covid-19 pandemic had on the livelihoods of youth in Shan State?" The researcher probably wants the results they get (findings) to be used to help the youth in Shan State. Applied research is commonly used in the social sciences, but also in medicine. Think about cancer research, for example: researchers want to use their findings to help treat or cure cancer. Applied research is also what is used for policy- and decision-making.

In which situations do you think applied research is used in Myanmar?

Why do *you* want to do research?

Activity 1.1.

- Define formal research.
- Give an example of formal research.
- Give an example of applied research.

Activity 1.2.

Talk with members of your community and find answers to the following questions:

- Have any community members ever participated in formal research before?
    - If so, what for?
    - Was it applied research?
    - How do you know if it was applied research or not?
- Do they think this particular research was important? Why/why not?

Reminder: "Community" can mean any group of people with something in common. You could ask your friends/peers, classmates, family, people in your village or neighborhood, or even a group of people you talk to online.

Activity 1.3.

Scenario

In a camp for internally displaced people (IDPs), some volunteers wanted to start teaching English to the children living in the camp. They decided to set up evening classes for older children and teenagers. They knew there were about 150 children in their target age group in the camp, so they planned to have five groups of 30 students. They prepared their lessons, announced the classes around the camp, and got started. On the first evening, only 15 % of the 150 children attended the class. The volunteers were confused, but they thought perhaps they had not advertised well enough. The next day, they went around the camp to different families and told them about the classes in person.

The following week, still very few children attended. The volunteers could not understand why. After a few days, they talked with some of the social workers in the camp and some parents. They were told that older children and teenagers have a lot of house chores to do in the evenings, and they are often responsible for looking after their younger siblings.

The volunteers understood that the timing of the classes was not good, so after asking some of the families in the camp, they changed the classes to mid-morning.

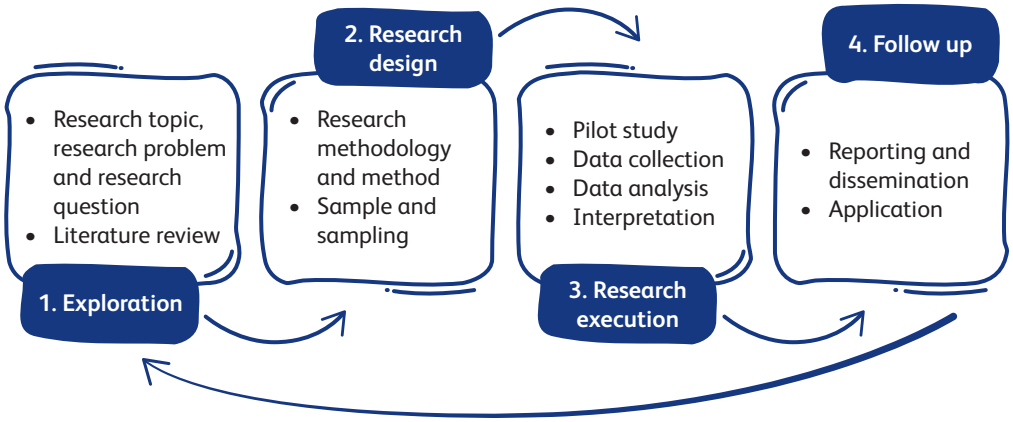
What should the volunteers have done before setting up the classes?

2 Steps of the Research Process

By the end of this chapter, you should be able to:

- Identify and explain the steps of the research process.

While no two research projects are the same, most researchers follow these steps:



- **Disseminate:** to share, spread, or distribute
- **Sampling:** choosing the people who will participate in your research (your sample)
- **Pilot study:** a small practice version of your study used to test if your method works well and is easy for participants to understand before doing the main study

In the **exploration phase**, you investigate your area of interest (explore) and decide on your research topic. This usually includes reading literature (books, articles, news, magazines, etc.), and can include speaking with friends, community members, teachers, or other people of interest. From talking to others and reviewing literature (see *Chapter 4: Understanding the Background (Literature Review)*) you get an understanding of the background of your research topic, and you can develop your research problem and your research question. In reality, reading and reviewing literature is often done throughout the research process, but is especially useful at the beginning. You may also study theories related to your research problem, particularly if you are doing academic research. This phase can take time, but it is important to get the focus of your research right.

In the **research design phase**, you think about different methodologies and methods (ways of doing research) and decide which ones will help you answer your research question. You plan how you will carry out your research, including which tools you will use, where you can find the data you need, who will participate in your study and how you will find them, and what the risks are, among many other details.

In the **research execution phase**, you do a pilot study to test your method and make changes if needed. Then, you collect your data. After that, you analyze your data. This involves looking at all your data, summarizing, and interpreting it (explaining what it means).

The **follow up phase** includes reporting and dissemination, and application. You report what you found from your data either orally or in written form and present it in a way that your audience or readers will understand. Then, you want the new information to reach relevant people, so you disseminate your report or research findings. Depending on the research project, the information can be used by you and/or by community members, decision-makers, other researchers, and so on. This is called the application stage.

What do you think are the most important parts of the research process? Which parts seem difficult/easy?

Have you ever read a research report by any organization or institution? If so, what do you remember about it?

Activity 2.1.

This is one student's summary of her research project. However, the paragraphs are not in order. Read them and put them in the correct order by numbering them from 1 to 10.

I read books, articles and news about water usage and discussed my project with colleagues and other people I knew had done research before. I wrote down important information I found in the literature and kept note of what I read (title, author, year, and publisher).

Because I was carrying out the research in my own community, it was quite easy to get participants, and luckily, I had enough time, so I went from house to house asking the adults of each household to participate in a focus group discussion three days later. Most agreed, but some were not available, so I ended up interviewing six groups of six to eight villagers per group. I recorded the interviews (with the participants' consent) and took written notes with the help of a research assistant.

I was interested in environmental issues, so I read some literature and news articles, brainstormed with colleagues, and observed what was happening in my community.

Next, I had to decide who the participants should be, and how I would find them. I decided they had to 1) live in Tuivial Village and 2) be over 18 years of age.

I realized that the main environmental issue in my community was lack of water. I wanted to know the impacts of this issue on the community. My research question became "What are the impacts of water shortages on the community members in Tuivial Village, Tedim Township, Chin State?"

I did this research project to understand the impacts the water shortage was having on my community and to use it to advocate for help from NGOs and local government. Soon I will set up meetings with key decision-makers and bring my research report as evidence that the situation is serious and that we need support.

I then had to plan what methodology and methods I should use. From reading other research reports about water shortages and considering my research question, I decided to do a qualitative study using focus group discussions, which would be both useful and timesaving.

Then I created an interview guide with open-ended questions so that the participants could add more information about their opinions and experience if they wanted. My colleagues and friends helped me to edit the questions and then I did a pilot study with three community members.

Then, I wrote a report with the results (findings) of my study. I shared the report with the participants and relevant organizations, professionals, and activists.

After collecting the data from the 40 community research participants, I did the analysis. I spent a lot of time listening to the recordings and writing down everything that the participants said. I read the data carefully many times, and then found the common themes discussed by the participants.

Further reading

Kumar, R. (2011). Chapter 2: The research process: a quick glance. In *Research methodology: A step-by-step guide for beginners*. Sage. https://b-ok.africa/book/2647081/5d2269

3 From Research Topic to Research Question

By the end of this chapter, you should be able to:

- Differentiate between area of study, research topic, research problem, and research question.
- Form research questions for your research project ideas.

What are you interested in researching? Brainstorm for two minutes.

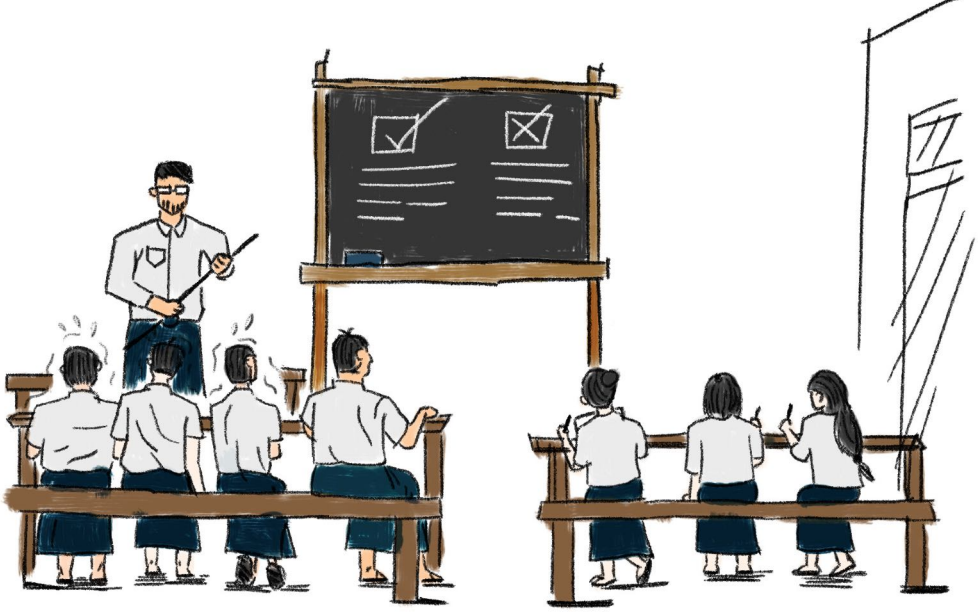
You probably already know the **area of study** you are interested in since it refers to a broad field of knowledge that you, for instance, can imagine yourself studying at university, such as the field of education or environmental science.

The **topic** is a specific issue in the area of study: for example, corporal (physical) punishment in education settings. In other words, the topic is what you do your research study on.

Don't forget to think about gender issues related to your research topic. For example, you might need to consider how women and men could be differently affected by water shortages.

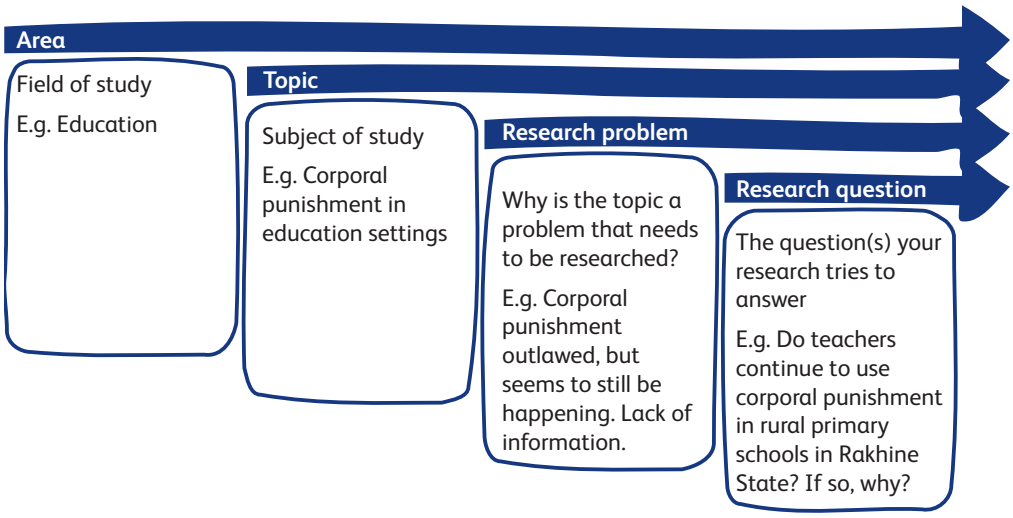
The **research problem** explains why your research study is needed, or why the research topic needs attention. You might find that there is a lack of data on your topic, which is in itself a problem. Your research problem could be:

> "Corporal punishment is recognized internationally as a violation of children's rights and has been proven to be an ineffective way to discipline them. Personal stories and experiences suggest that teachers in rural Myanmar still use corporal punishment (hitting/beating students) even though corporal punishment is outlawed in the Child Rights Law 2019 and despite there being government directives against corporal punishment in all education settings. We do not know for sure if teachers in rural Myanmar still use corporal punishment, and, if they do, why."



Finally, you develop a specific question—the **research question**—that your study will answer. Research questions usually start with a *What*, *Why* or *How*. It is important to make your research question as narrow as possible by limiting it to a timeframe (e.g., in the last five years), geographic location (e.g., Mon State), demographic (e.g., youth) or another aspect. For example: "Do teachers in rural primary schools in Rakhine State continue to use corporal punishment? If so, why?". This research question includes a *Why*, and is specific to a location (rural Rakhine State) and a demographic (primary school teachers).

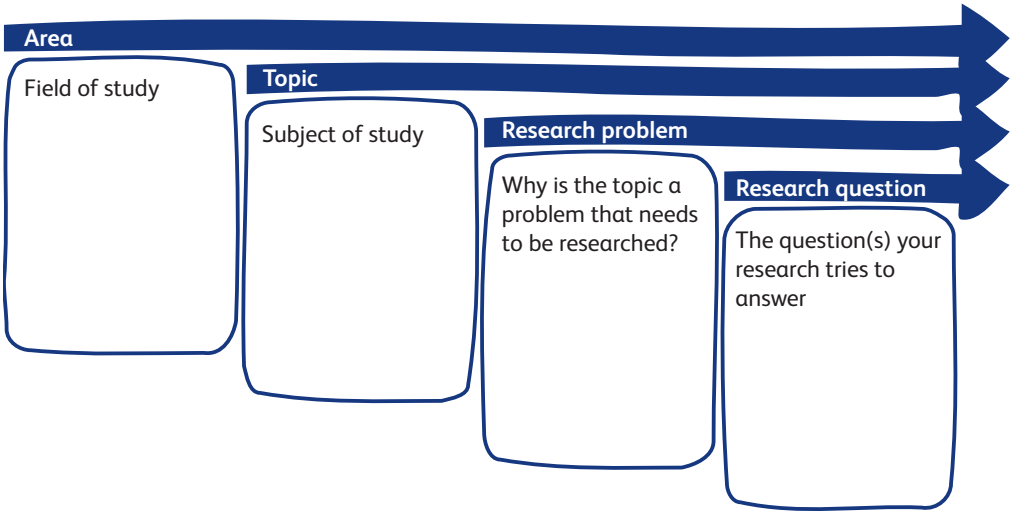
This process of narrowing the focus of your research is extremely important. Your research question guides your whole research project, and if it is too broad, it will be difficult for you to find the answers. Your research question will keep you focused and help you decide what type of information you need to collect. This is why the research question is essential to the research process.



Now you know what areas of study, topics, research problems, and research questions are. To get from area of study to research question you need to brainstorm a lot, do a literature review, and maybe discuss with colleagues, peers, teachers, or community members. The next chapter will explain how to do your literature review.

Activity 3.1.

Look back at the activity in Chapter 2. Can you identify the area, topic, problem, and question of this particular research? Fill out the figure below with your answers.



Activity 3.2.

Make the following research questions narrower.

For example: What are the effects of unemployment on mental health?

What are the effects of prolonged unemployment on young men's mental health in Singapore?

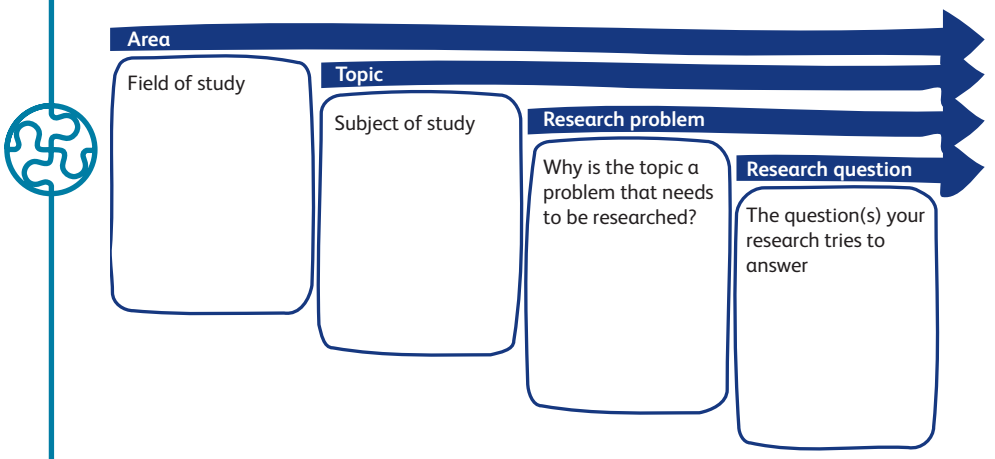
1. What are farmers' opinions on the use of chemical fertilizers?

2. How do religious leaders influence the community?

3. Does family income affect students' choice of university majors? If so, how?

Your project

What are you interested in researching? Narrow it down from area to research question.



Further reading

Purdue University. (n.d.). *Research: Where to begin*. Purdue Online Writing Lab. https://owl.purdue.edu/owl/research_and_citation/conducting_research/research_overview/index.html

4 Understanding the Background (Literature Review)

By the end of this chapter, you should be able to:

- Explain a literature review and its purpose.
- Search for information/literature online.
- Check the reliability of online sources.
- Understand what referencing is and why it is important.

What is literature?

"Literature" can be defined as a collection of information on a particular subject. It can be found in books and journal articles, reports produced and published by non-governmental organizations (NGOs), government documents like policies or statements, blogs, newspapers, magazines, webpages, documentaries, and so on.

What is a literature review?

Kiteley and Stogdon (2014) define a literature review as "a comprehensive summary of the ideas, issues, approaches and research findings […] on a particular subject area or topic" (p. 9). Working on a literature review is a time-consuming process that involves reading, summarizing, and analyzing literature in your chosen area of study that is relevant to your research topic. Reviewing literature is also a skill that improves with practice, so do not worry if it seems difficult at first.

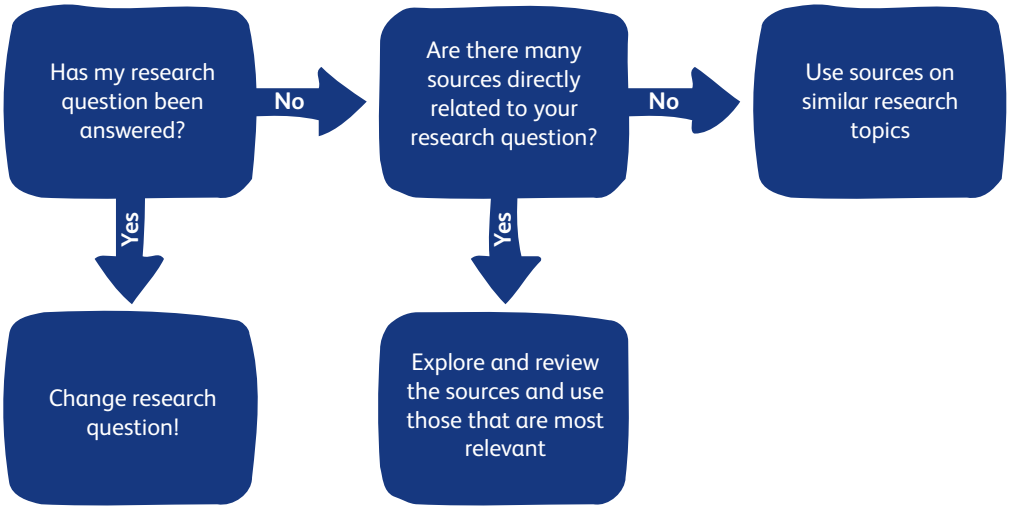
What is the purpose of the literature review?

The main purpose of a literature review is to understand the background of your topic, including finding out whether your research question has already been answered by any other researcher. For example, if your research question is: "What are the effects of seasonal flooding on children's access to education in Mon State?" then you should look for literature sources trying to answer the same question.

If you find a lot of sources already providing a clear answer, then your research is probably not necessary, and you need to change your research question. For example, if your research question is: "What are the impacts of climate change?" a quick search on the internet would show you that this topic (the impacts of climate change) has been investigated by many other researchers around the world and that these researchers have already answered your research question for you.

On the other hand, if your research question has not been answered yet or you think there is still more to be explored, you will need to review sources relevant to your research problem and research question in order to choose the most important ones. Most of the time there is simply too much literature available on a particular topic (especially on the internet) and deciding what to include and what to exclude is an important part of every literature review process.

Sometimes, you might not find any sources related to your research topic at all, so you should look for sources on similar research topics. For example, if you can't find any sources answering the question "What are the effects of seasonal flooding on children's access to education in Mon State?" then you should review studies on the effects of flooding on education across Myanmar (not only in Mon State), or studies on the effects of flooding on children's education in other countries.



When you have finished reviewing the literature and written a summary and analysis of what you have learned from all the reviewed sources, the knowledge you have gained along the way will help you in the next steps of the research process. You should now be well-informed on this topic and should be able to explain it to others.

Moreover, you will be able to include this literature review in a report (if you choose to write one). The review will give anybody who reads your report a background of the topic and outline important ideas they need to know about in order to understand your research.

How do I find literature?

Reviewing the literature starts with the **literature search**.

- **Source (of information):** a person, book, document, article, etc. that provides information
- **A reliable source:** can be trusted, based on logical reasoning and/or evidence
- **Reference/cite (v.)**: to mention or refer to a source
- **Bibliography:** a list of sources reviewed on a particular topic, like a "reading list"
- **Reference list:** a list of sources that were used (referenced or cited) by the author of the text (for example, in a specific article or report)
- **Plagiarism:** using someone else's words or ideas without saying it is not your own work

Below are some tips for finding literature to review.

To find physical (hard copy) books and publications:

- Libraries (public libraries, university libraries).
- Organizations often have a small collection of publications related to their work.

Online libraries and databases:

- Online libraries such as Wiley Online Library[1], Academia[2], Research Gate[3], and Core[4](but they are not always free).
- Online databases such as Google Scholar[5], Google Books[6], and CrossRef[7].
- For information specific to Myanmar try The Online Burma/Myanmar Library8, search Tea Circle9 or their compiled bibliography10, or use Andrew Selth's compiled bibliography11 to find relevant literature.
- For free access to many books and articles, sci-hub[12] and z-lib[13] are extremely useful.

1 Wiley Online Library. https://onlinelibrary.wiley.com/
2 Academia. https://www.academia.edu/
3 Research Gate. https://www.researchgate.net/
4 Core. https://core.ac.uk/
5 Google Scholar. https://scholar.google.com/
6 Google Books. https://books.google.com/
7 Crossref. https://search.crossref.org/
8 Online Burma Library. http://www.burmalibrary.org/
9 Tea Circle. https://teacircleoxford.com/
10 Tea Circle: Bibliography of Burmese Studies https://docs.google.com/spreadsheets/d/1_A2zknhO4SGoFmtT4CBOUDhGW9LI-L91A1WGNMnV7LrY/edit#gid=150686075
11 Selth, A. (2018). Burma (Myanmar) since the 1988 uprising: A select bibliography. Griffith University. https://www.griffith.edu.au/__data/assets/pdf_file/0032/485942/Burma-Bibliography-2018-Selth-web.pdf
12 Sci-hub. http://www.sci-hub.se/
13 Z-lib. http://www.z-lib.org/

To find sources relevant to your topic:

- Think of keywords related to your topic. For example, if you are planning to do a research paper on "adolescent pregnancy" your search terms might include "teenage pregnancy," "adolescent reproductive health," "adolescent mothers," and so on.
- Do not forget to search for both "Myanmar" and "Burma" if you are looking for country-specific literature.
- After you find sources that are related to your topic, read their bibliography or reference lists to find even more relevant sources.

Checking the reliability of online sources

If a source is **reliable** it means we can trust that the information in the source is believable. The author may have used other reliable sources and based their argument on evidence and not on their own opinions. When we research, we are looking for a true answer to our questions, so it is important that the sources of information we use can be trusted. A lot of information on the internet is based on the opinion of the author, not thoroughly researched, or just plain nonsense!

To check the reliability of online sources, think about the answers to these questions:

- Is the information recent/current?
- Does it include most key information?
- Are there references in the source?
- Do you know the purpose of the source? Was it written/made to inform, persuade, or entertain?
- Is the author's name listed? Can you find out more about the author?

If you answer "yes" to most of these, it is more likely to be a reliable source. Sources made to inform tend to be more reliable than sources made to entertain. If you are not sure about the reliability of a source, ask for help or do not use it.

How do I do the literature review?

When you have found a couple of relevant sources and start reading, remember to take notes and keep a record of the sources you read (including author, date, title, and publisher). This will help you in the future if you need to find the information again, or if you want to refer to it in your written report or presentation.

While you are reviewing the literature sources, you should think about the following questions:

- Is this source relevant to my research project? Does it help me understand the background of my research topic?

- What are the strengths and weaknesses of this source? For example, a strength could be that the author provides a lot of evidence to support their argument. A weakness could be that the author does not give enough detail on some aspects.
- If it is primary research, how was the data collected?
- What is the author's conclusion?
- Does the source impact my research question—do I need to edit/change it?

Referencing sources

To avoid **plagiarism** (copying or using someone's words or ideas without saying it is not your own work), you must **reference** all the sources you use. There are many different referencing styles you can use, including APA Style,[14] Harvard Style and others. If you are doing your research in or for an organization, check which referencing style they prefer. This guide uses APA Style, 7th edition.

- If you are using someone's work word-for-word, use quotation marks and include a page number if possible. For example:

"In communities where village affairs were formerly seen as arenas belonging to village leaders, elders and household heads, local youth from the villages have become central actors of community development" (ActionAid Myanmar, 2020, p. 17).

- If you are using someone's work, but you write/say it in your own words, also include a reference. For example:

ActionAid Myanmar (2020) found that village youth became more important and engaged in their communities.

- If the information you are using is "common knowledge" in the area of study, you do not need to reference. For example:

The dry zone of central Myanmar and some parts of Chin State often suffer from drought and water shortages.

Any sources you refer to in your presentation or written report should be listed in a reference list at the end. You can see an example of a reference list at the end of this guide.

Not referencing properly, whether intentionally or not, is unethical and can have serious consequences. It could make you and your research look untrustworthy and unprofessional, and if you are in a school or university, you could fail, be suspended, or even expelled due to plagiarism.

14 APA Style. https://apastyle.apa.org/

Activity 4.1.

1. Visit https://factsanddetails.com. Do you think it is a reliable website?

2. Visit www.droughtmanagement.info. Do you think it is a reliable website on which to find information?

Your project

- Think about your research topic or choose one of the topics from the examples in chapters 2 and 3.
- Decide on key search terms and search for a relevant research paper or article.
- Briefly explain how the article is (or is not) relevant to the topic of your research project.
- When you find a source that is relevant to your topic, find its bibliography or reference list.
- Read the bibliography/reference list and find another title that sounds relevant to your topic. Then, try to find that source by searching online.

Further reading

Eisen, A. (2014, June 24). *Research 101: Searching is strategic.* [Video]. YouTube. https://www.youtube.com/watch?v=4CHKYaJkuO0

Google Scholar. "Search tips". https://scholar.google.com/intl/en/scholar/help.html

Kiteley, R. & Stogdon, C. (2014). Chapter 1 What is a literature review? In *Literature Reviews in Social Work*. Sage. https://www.sagepub.com/sites/default/files/upm-binaries/58106_Kiteley_&_Stogdon.pdf

USCLibraries. (2022). Organizing your social sciences research paper. 11. Citing sources. *Research Guides*. https://libguides.usc.edu/writingguide/citingsources

5 Choosing the Right Methodology

By the end of this chapter, you should be able to:

- Distinguish between qualitative and quantitative methodologies and why they are used.
- Identify the main characteristics of qualitative and quantitative methodologies.

What is methodology?

Methodology is an approach we use when we collect data. There are many different types of methodologies, but social research generally uses either **qualitative methodology** or **quantitative methodology.**

Qualitative methodology

- **Subjective:** from a particular person's perspective; personal

Qualitative methodology is an approach we use when we are interested in knowing the "quality" of situations, things, or ideas (what they are and what they mean). In such cases, we typically collect data in the form of words (qualitative data). In social research, studies that utilize qualitative methodology aim to describe in rich detail and understand in depth how particular issues affect the lives of participants.

To obtain rich descriptions and deep understandings, qualitative researchers need to give enough time and attention to each of their participants, and that is why qualitative studies usually gather data from a smaller sample size (number of participants). In this sense, qualitative methodology is an approach that is more subjective: it aims to understand the opinions and experiences of a few, specific people (i.e., your participants).

A research project that used qualitative methodology

Anonymous. (2020). *Lack of recognition of indigenous people's customary land tenure: Experiences and opinions on the land law reform in Kayah (Karenni) State*. Thabyay Education Foundation.

In this research project, the researcher was interested in studying land conflicts in Myanmar, as conflicts over land are common in various parts of the country. She found that there were few studies that focused on the impact of land confiscation on farmers, and on land law reform in Kayah (Karenni) State specifically. After further thought and time spent reviewing the literature, her research question became "*What are the experiences of Karenni farmers with land confiscation, and what are the opinions of Kayah (Karenni) State based CSOs and ethnic political parties on the land law reform?*"

Since the researcher wanted to find out the experiences and opinions of farmers and experts working on land issues, she decided to conduct a qualitative study in order to get an in-depth understanding. The researcher created interview questions and tested them in a pilot study. She collected data via one-on-one in-person interviews (see *Chapter 6: Choosing the Methods*). The interview questions are below.

Interview Guide on Land Confiscation and Land Law Reform

Interview part	**Interview questions**
Part 1. Experience with land confiscation	1) How did your family use to manage your lands? 2) Has your land been confiscated before? 3) How many acres have been confiscated? When? 4) Who and why did they confiscate your land? 5) Do you have any documentation? Was this documentation useful for you when your lands were confiscated? 6) How did you feel when your lands were confiscated? 7) Have the land laws affected on you and your family? How?
Part 2. The authorities' informing of land confiscation	8) Did the authorities inform you before or after land confiscation? 9) Where did the authorities inform you about the land confiscation? 10) What did you get from their informing?

Interview part	Interview questions
Part 3. Information about the land laws	11) Do you know any land laws? If yes, how did you get that information? 12) Did you get any information from the government? 13) Do you recognize and agree with these reforms of land laws or not? Why?
Part 4. Opinions about the land law reform	14) What are the advantages and disadvantages of these reforms? 15) Do you recognize and agree with these reforms of land laws or not? Why/Why not? 16) What do you wish for the future regarding land laws?
Part 5. The reform's impacts on the relation between farmers and the state government	17) Do you think the land confiscations affect the relation between you and the state government? 18) Who is the most responsible person for this issue? Why?
Part 6. The reform's impact on peace	19) Does the land law reform affect the peace process of Kayah (Karenni) State positively or negatively? 20) How does the land law reform affect the state's stability? 21) Do you think it makes the peace process of Kayah (Karenni) State better or worse than before? Why?

Quantitative methodology

In contrast to qualitative methodology, quantitative methodology is an approach we use when we are interested in knowing the "quantity" of something (how many or how much). We therefore collect data in the form of numbers (quantitative data). Studies that employ quantitative methodology usually aim to make generalizations, that is, obtain results that are true for most people, things, or situations, not just a select few. This is why quantitative studies gather data from a large sample size (number of participants). In this sense, quantitative methodology is an approach that is less subjective; although it can collect data on people's opinions, it doesn't focus on each individual's opinion but rather on what a group of people think when their opinions are considered as a whole.

Quantitative methodology is often used to examine the relationships between things, for example, the relationship between participants' income and their level of happiness ("Are people who earn more money also happier?"). Quantitative studies tend to be less in-depth than qualitative studies but collect more "width" of information from a larger sample.

A research project that used quantitative methodology

Anonymous. (2019). *Public trust in the Myanmar Police Force: Exploring the influencing factors.* Friedrich Ebert Stiftung Myanmar Office. https://library.fes.de/pdf-files/bueros/myanmar/15643.pdf

In this research project, the researchers were interested in studying the police as an important institution of a functioning state. Reviewing the literature, they identified a gap—no study on how much people trust the Myanmar Police Force (MPF) had been done before—and therefore decided on the following research question: *What is the level of public trust in the MPF and what influences it?*

The researchers collected data from 401 participants and used a questionnaire as a method of data collection (see *Chapter 6: Choosing the Methods*). As you can see below, the questionnaire included 12 questions, most of which were either Yes or No questions or on a scale from 1 (no trust at all) to 5 (total trust). Notice that the data (answers) are mainly number based. The researchers can also count the number of participants who answered 'yes' or 'no' to questions 5-8.

Questionnaire on Public Trust in the Myanmar Police Force

SECTION 1

Please answer the following questions by circling one of the options on the scale, ranging from 1= No trust at all to 5 = Full trust.

1. How much do you trust the police to treat people equally?

No trust at all				Full trust
1.	2.	3.	4.	5.

2. How much do you trust the police to treat people with dignity and respect?

No trust at all				Full trust
1.	2.	3.	4.	5.

3. How much do you trust the police to give people a chance to explain their problems?

No trust at all				Full trust
1.	2.	3.	4.	5.

4. How much do you trust the police to make decisions based on the law, not on personal bias?

No trust at all				Full trust
1.	2.	3.	4.	5.

5. How much do you trust the police to take into account the needs and concerns of people?

No trust at all				Full trust
1.	2.	3.	4.	5.

6. How much do you trust the police to have the competence to tackle the problems?

No trust at all — Full trust

1.	2.	3.	4.	5.

7. How much do you trust the police to give explanations for their actions openly?

No trust at all — Full trust

1.	2.	3.	4.	5.

SECTION 2:

Please answer the following questions by filling in the space or circle one of the answers provided.

1. Gender:……..……

2. Age:……

3. Ethnicity:……

4. Religion:……..……

5. Have you ever interacted with police for service or assistance, for example, when asking recommendation for work or school, making ID/ passport, or similar?

A. Yes B. No

6. Have you ever been stopped by the police, for example, because you violated the traffic law or just for a random check?

A. Yes B. No

7. Have you ever been arrested?

A. Yes B. No

8. In general, do you feel like it is easy to obtain help from the police in the community where you live?

A. Yes B. No

9. If No, can you please provide the reason for why it is not easy?

……

Think of some possible answers to the interview questions from the land law reform study. Then complete the questionnaire from the study on trust in the MPF. Think about how they differ: how long would each of these two methods take to complete? Did you give short answers or long answers? Which answers were facts and which answers were opinions?

Mixed methodology

Some research projects use a mixed methodology approach, combining qualitative and quantitative methodology and methods of data collection and data analysis in a single study.

Mixed methodology is used simply when it is the best way to find the answers to the research question; some researchers insist that using mixed methodology gives us a more complete answer than using only quantitative or qualitative methodology. For example, in Lim et. al.'s 2013 study *Trauma and mental health of medics in eastern Myanmar's conflict zones: a cross-sectional and mixed methods investigation*, they used two quantitative surveys as well as semi-structured qualitative interviews to study the mental health of community health workers in Karen State. One of the questionnaires was used to measure symptoms of post-traumatic stress disorder, and the other questionnaire was used to detect symptoms of other psychiatric disorders. The interviews gave more insight into the challenges, coping mechanisms, and resilience of the community health workers. In this way, they were able to measure the number of health workers who had symptoms of psychiatric disorders, as well as get a deeper understanding of the mental health challenges and coping mechanisms associated with community health work.

How to choose your methodology

Think about the best way to find out more about your research problem and answer your research question. Are you measuring something? Do you want to create generalizations? Then you might consider doing a quantitative study. If you are exploring and want to understand something deeply, a qualitative study might be right for you. Neither methodology is better than the other—they are just different, and the best one for your research project depends on your research question.

Then, check what other studies related to your research topic have done. Do they use a quantitative or qualitative methodology? Why? This is usually explained in the methodology section of the article or report.

Finally, think about practicalities. Are you more confident working with numbers or with words; that is, do you

have the right skills? If you want to do a quantitative study, do you have the time or other resources to collect data from a large sample? Do you have access to a lot of willing participants?

To summarize, in order to choose your methodology, you need to figure out what type of data you need to collect (quantitative or qualitative) and decide from there depending on the skills and resources available.

Activity 5.1.

Complete the table with the appropriate descriptions of qualitative methodology and quantitative methodology using the words and phrases in the box.

to describe and understand / bigger / numbers / subjectivity / what things mean / smaller / how much there is of something / words / width / to explain and generalize

	Qualitative methodology	Quantitative methodology
Its goal is…		
It focuses on…	depth	
It studies…		
It values…		objectivity
The data are…		
The samples are…		

Activity 5.2.

Do you think the studies described below used qualitative or quantitative methodologies?

Title: *The Impact of COVID-19 on Small and Medium-sized Enterprises: Evidence from Two-wave Phone Surveys in China*

"This paper examines both the short-term and mid-term impact of COVID-19 restrictions on small and medium-sized enterprises (SMEs), based on two waves of phone interviews with a previously surveyed large SME sample in China" (Ruochen Dai et. al, 2020). The researchers wanted to find information such as how long businesses expect to take to recover, how many employees were affected, and how much their revenue and costs were affected compared to last year.

Ruochen Dai, Hao Feng, Junpeng Hu, Quan Jin, Huiwen Li, Ranran Wang, Ruixin Wang, Lihe Xu, and Xiaobo Zhang. (2020). *The impact of COVID-19 on small and medium-sized enterprises: Evidence from two-wave phone surveys in China.* Center for Global Development. https://www.cgdev.org/sites/default/files/impact-covid-19-small-and-medium-sized-enterprises-evidence-china.pdf

Title: *In-service Teachers' Training: The Case of University Teachers in Yangon, Myanmar*

"This paper explores the views of eight (8) university lecturers in a university in Yangon, Myanmar with regards to the teacher capacity building and language enhancement training program they attended from 2014-2016. The interview data, […], were taken from the participants' personal knowledge and experience of the teacher training program." (Ulla, 2018, p. 66).

Ulla, M. B. (2018). In-service teachers' training: The case of university teachers in Yangon, Myanmar. *Australian Journal of Teacher Education, 43(1),* 66-77. https://files.eric.ed.gov/fulltext/EJ1169154.pdf

Activity 5.3.

- Search for primary research studies that suit your interests or planned research topic.
- Choose two articles and read the introduction and methodology sections.
- Compare each article's explanation of the researcher's chosen methodology. Why did they choose to use a qualitative/quantitative methodology? Although the authors might use different terms, you should be able to tell whether the study used a quantitative or qualitative approach.

Your project

Review your research problem and research question. Would a qualitative or quantitative approach be right for your project?

Further reading

Dawson, C. (2002). *Practical research methods: A user-friendly guide to mastering research techniques and projects*. How To Books. https://b-ok.africa/book/449067/0eae06

6 Choosing the Methods

By the end of this chapter, you should be able to:

- Differentiate between research methodology and research methods.
- Distinguish between structured, unstructured, and semi-structured interviews and understand why they are used.
- Identify the characteristics, and strengths and weaknesses of focus group discussions and understand why they are used.
- Identify the characteristics, and strengths and weaknesses of questionnaires and understand why they are used.
- Choose the best methods for your research project.

If you have ever been a participant in a research study, how did the researchers collect the data?

If you have ever read a research report, can you remember how the data was collected?

After you choose your *approach* to collecting data (methodology), you need to decide on *what tools* you will use to collect your data (methods). There are many different research methods to choose from, but this chapter will focus on three commonly used methods: interviews, focus group discussions, and questionnaires.

Common methods for collecting quantitative data are questionnaires, experiments, and observations. Common methods for collecting qualitative data are interviews, focus group discussions (FGDs), observations, and case studies. This chapter focuses on interviews, FGDs and questionnaires.

Interviews

Interviewing is a method that involves asking questions to a single participant in person, online, or over the phone. The advantages of interviews are that you can deeply explore people's opinions, experiences, and feelings, and that they allow you to interact with the participants directly, clarify any misunderstandings, or ask for further information if needed. Therefore, they are well-suited to qualitative studies.

However, interviews have some disadvantages as well. Interviews can be time-consuming and/or difficult to schedule. Most of all, the researcher's interviewing skills, and perceived identity, can influence the participants; according to Waterfield (2018), "The interviewer's sex, ethnicity, age, attractiveness, social class, level of education, perceived life experience, or professional background may affect how participants respond to questions, especially where these characteristics seemingly relate to the interview topic." For example, a participant may be less likely to be honest about their opinions on LGBTQIA+ rights if they think the interviewer is LGBTQIA+. Or, since teachers are highly respected in Myanmar, participants might be uncomfortable discussing socially unacceptable behavior with an interviewer who is also a teacher.

Interviews can be structured, semi-structured, or unstructured. In a **structured interview**, the researcher asks the participant specific questions in a particular order and does the same for all participants. It is often easier to analyze data from a structured interview, as you can directly compare participants' answers, and some researchers find it easier to carry out structured interviews since there is very clear guidance on how to proceed. However, the interviewer may miss out on important information if they stick to a structured interview without asking follow-up questions.

An **unstructured interview** is more like an open discussion with an overall goal, but without specific set questions. An advantage of unstructured interviews is that it is flexible and can feel more like a conversation which may make the participant feel more comfortable. But some researchers find it more difficult to stay focused on getting the data needed to answer the research question without a set list of questions, and the data analysis may be more difficult if participants touch on many different topics.

Semi-structured interviews are a balance between both structured and unstructured interviews. They usually have specific questions to be answered, but there is some flexibility: the interviewer can ask follow-up questions, or the participants can add further information if they want to. The advantages here are that the interviewer has questions planned in order to keep focus but has some flexibility as well. The disadvantage is that data can be a little more difficult to analyze as follow-up questions may not be the same for each interview.

In *Chapter 5: Choosing the Right Methodology*, you read about a study investigating land conflicts in Kayah (Karenni) State in which the researcher used semi-structured interviews. Why do you think this method was chosen?

A research project that used interviews

Connor, M. & Su Su San. (2020). Sustainable rice farming and its impact on rural women in Myanmar. *Development in Practice*. https://sci-hub.se/https://doi.org/10.1080/09614524.2020.1787350

In this study conducted in Ayeyarwady Region and Bago Region, semi-structured interviews were used to gain insight and understanding of the rural women's opinions and experiences of how their lives changed after getting increased income from growing rice in more sustainable ways following best practice. The study found many changes at personal, family and community level. The research team chose to use semi-structured interviews because interviews have been proven to be useful for groups of different people with different levels of literacy and understanding. They also wanted the women to be able to speak quite freely.

Focus group discussions

Focus group discussions (FGDs) similarly involve discussions but are done in a group. The researcher acts as a facilitator, allowing the group to discuss the topic and questions freely, and agree or disagree with each other. Researchers usually set up a group of participants with similar experiences or from a similar background, for example, teachers in a rural community, youth activists, parents of young children, and so on. The number of participants will vary according to the researcher's needs and according to what is practical, but it usually ranges between five and eight participants.

An advantage of FGDs is that sometimes participants may be more comfortable discussing a topic in a group setting, and you can also observe the dynamic between the participants (how they interact with each other). You can also collect more data in less time when compared to interviews. However, participants might not express their true opinions if they think differently than the group norm, are not very self-confident, or have a "lower status" than other participants (e.g., employee versus their boss). For this reason, it is important to carefully choose who will be in each FGD, and to practice your facilitation skills so that you can make sure that every participant gets to speak and express their opinions and feelings as freely as possible. Like interviews, the facilitator's perceived identity can also influence the participants' answers.

A research project that used focus group discussions

Anonymous. (2019). *Collaboration as a plus for peace*. Friedrich Ebert Stiftung Myanmar Office. https://library.fes.de/pdf-files/bueros/myanmar/15640.pdf

This project researched collaboration among youth in the peace process in Myanmar in 2018-2019. The researchers conducted FGDs with youth from urban areas, rural areas and conflict-affected areas. They chose to use semi-structured FGDs so that participants could share their experiences and get ideas from each other and to see if participants agreed or disagreed with each other. Their findings suggested that collaboration between youth groups as well as between youth and older generations and the government are important for building peace in Myanmar.

Questionnaires

A questionnaire is basically a set of questions ready to be answered by your participants: you do not interview participants directly, but instead have them answer your questions themselves. Questionnaires are well-suited for quantitative studies since they are most useful when used with large numbers of participants or participants in different locations, and when you need to collect quite uncomplicated data in a short period of time; an advantage of questionnaires is that they can be quite efficient. However, in some cases, it might be necessary for a data collector to ask the questions and fill out the form for the participants, which is very time-consuming. That is usually done when some or all of the participants cannot read and write well, or when it is extremely important that the participants understand and can answer all the questions (e.g., in a population census).

Questionnaires can collect both facts and opinions; for example, a 'fact' question might ask "Has your child ever missed school due to flooding? (Yes/No)," and an 'opinion' question might ask "On a scale of 1 to 5, how effective do you think corporal punishment of children is (as a form of discipline)?" However, questionnaires cannot really study something in depth. Preparing questionnaires also takes a lot of time, because once you finalize and print them (or publish them online), you will not be able to change them anymore or ask any follow-up questions in case of a misunderstanding.

In *Chapter 5: Choosing the Right Methodology*, you read about a study measuring public trust in the Myanmar Police Force in which the researchers used the questionnaire method. Why do you think this method was chosen?

A research project that used questionnaires

Kawasaki, A., Kawamura, G., & Win Win Zin. (2020). A local level relationship between floods and poverty: A case in Myanmar. *International Journal of Disaster Risk Reduction, 42*. https://doi.org/10.1016/j.ijdrr.2019.101348

In this study, the relationship between floods and household poverty was investigated in Bago city. The research team went from house to house with questionnaires about the flood situation (duration, depth, income damage, damage to assets), demographics (e.g., age, gender, income), and vulnerability (preparedness for disasters, health, etc.). Their analysis of poverty and floods seemed to show that "poor people who live in fragile houses tend to live in flood-prone areas, where floods have the effect of trapping people in a cycle of poverty". Questionnaires were used to collect data from a large sample to measure poverty by asking questions about things such as household income, level education, and number of people living in the household.

Another interesting method for qualitative studies is **oral history**. This is a research method that involves in-depth interviews with someone who experienced historical events or periods (it is a first-hand account, so it cannot be, for example, a grandchild telling the researcher about a grandparent's experience). Usually, the interviewer does not ask many questions but lets the participant tell their story, mainly uninterrupted. This type of research can add new perspectives and tell the stories of those often left out of history (e.g., women and minorities). For example, Open Society Institute's *To look at life through women's eyes: Women's oral histories from the former Soviet Union*, provides an insight into the lives of women in eight former Soviet countries, documenting their experiences both under the Soviet Union and afterwards. This type of research could be particularly useful in places where history has been controlled and censored.

Practicalities

- **Controversial (topic):** causing a lot of disagreement
- **Sensitive (topic):** can easily cause people to be upset or angry

Things to consider when choosing your data collection methods:

General practicalities

- Do you have enough time to collect the data?
- Do you have access to participants that can provide you with the required data? (E.g., can you find primary school teachers in rural Rakhine State that will be willing to be interviewed?)
- What resources do you need (money, transport, etc.)?

Interviews

- Will they be in-person? Over the phone? Via videocall?
- Will your participants be comfortable in a one-on-one interview?
- Do you have the skills (or can you gain the skills) needed to create trust with the participants and to act fairly without judging them?

Focus group discussions

- Will your participants be comfortable speaking in a group?
- Do you have the skills (or can you gain the skills) needed to create trust with the participants and try to avoid bias?
- Do you have the skills (or can you gain the skills) needed to facilitate a fruitful group discussion and to make sure that every participant gets a chance to speak?

Questionnaires

- Do you have access to a large pool of participants who can read and write? If not, do you have the resources to go from participant to participant filling out the questionnaire for them?
- Do you have the skills (or can you gain the skills) needed to prepare a set of very clear and easy-to-answer questions?
- Do you have the skills (or can you gain the skills) needed to distribute questionnaires online (if applicable)?
- Do you have the skills (or can you gain the skills) needed to analyze quantitative data (see *Chapter 13: Analyzing and Interpreting Quantitative Data*)?

It is important to think about how sensitive and/or controversial your research topic is, and how this will affect your data collection. If you are researching a particularly sensitive or controversial topic (e.g., violence against women or illegal jade mining), your choice of methods will be affected because you will have to think about the type of people who will be willing to answer your questions, and in what format.

Questionnaires allow more anonymity as there is no interaction between the participant and the researcher, but sometimes sensitive issues need to be discussed thoroughly in order to get a full picture; in that case, an interview or FGD is more suitable. In-person methods also provide the opportunity to build trust with the participants and make them feel more comfortable speaking about difficult topics.

See *Chapter 11: Ethics and Risks* for more detail.

Activity 6.1.

Fill out the table below with the definitions (What is it?), methodology (Quantitative and/or qualitative) and strengths and weaknesses of the methods introduced in this chapter.

Method	What is it?	Quantitative and/or qualitative?	Strengths	Weaknesses
Interview				
Focus group discussion				
Questionnaire				

Activity 6.2.

Read Anonymous. (2019). *From margin to center: Experiences of political and social marginalization of ethnic minorities in Karenni State*. Friedrich Ebert Stiftung Myanmar Office. http://library.fes.de/pdf-files/bueros/myanmar/15641.pdf

Focus on the methodology section and answer the following questions:

What type of methodology and methods were used in this study? Why?

Your project

Think about your chosen research question and methodology. Which data collection methods would suit your project? Use the questions under *Practicalities* to help you to decide, and also reflect on what methods other research projects have used and why.

Further reading

Kumar, R. (2011). Chapter 9: Selecting a method of data collection. In *Research methodology: A step-by-step guide for beginners*. Sage. https://b-ok.africa/book/2647081/5d2269

Utah Humanities / Utah Division of State History. (2016). Introduction to oral history: For joint oral history grant program. https://utahhumanities.org/images/centerinitiatives/docs/OH.UDSH-UH.HowToConductOralHistoryInfo.pdf

7 Creating the Methods

By the end of this chapter, you should be able to:

- Distinguish between open-ended and close-ended questions and give examples.
- Recognize the importance of clear instructions.
- Develop questions for focus group discussions, interviews, or questionnaires.

- **Bias:** preferring one person or thing to another, and to favor that person or thing

Once you have chosen your methods, you will start preparing them. This includes developing questions and planning the instructions and explanations for your participants.

Types of questions: open-ended and close-ended

Open-ended questions allow participants to answer in their own words; for example, "Who do you think should be responsible for improving access to water in your village?" When used in an interview or FGD by a skilled interviewer, open-ended questions can produce rich and valuable data, and they can be useful for discussing sensitive issues because people can answer in their own words and from their own perspective. However, sometimes participants may also give more data than is needed or relevant, and it can take longer for participants to answer open-ended questions.

If open-ended questions are used in questionnaires, respondents can provide more varied information, but it might be difficult to analyze the data because respondents may give many different answers (Kumar, 2011). Data from open-ended questions is typically analyzed qualitatively (see *Chapter 12: Analyzing and Interpreting Qualitative Data*).

Close-ended questions are questions that limit the possible answers. For example, you could ask a similar question to the one above, but form it as a close-ended question:

- Who do you think should be responsible for improving access to water in your village? Select all that apply.
    - Villagers/community members
    - Village chief
    - Township municipal offices

- Administrators from ethnic armed organizations
- Members of Parliament elected by the township
- State/Regional Hluttaw
- Pyidaungsu Hluttaw

Close-ended questions include multiple choice questions (which allow you to select more than one option, like in the example above), yes/no questions, questions on a scale (for example, from 1 to 10), and more. Questions asking participants to rate their answers on a scale (usually from 1 to 5) are often called "Likert scale questions" and are very common in social research. Close-ended questions produce limited data, but if the questions are well-planned, you are sure to get the information you need and get it more quickly, and the data are easier to analyze. Data from close-ended questions are typically analyzed quantitatively (see *Chapter 13: Analyzing and Interpreting Quantitative Data*).

There is still a chance that your bias will come through even in close-ended questions; the possible answers you can think of may be influenced by your experience and knowledge. Another disadvantage is that participants may answer quickly without giving enough thought because they think the questions are easy to go through (Kumar, 2011).

Developing questions

At first, you might think that developing questions for your interview, FGD or questionnaire is easy, but it requires a lot of time and careful thought.

First, break down your research question and brainstorm what you really want to find out. For example, when using the example from *Chapter 2: Steps of the Research Process*, it could look like this:

> "What is the impact of water shortages on the community members in Tuivial Village, Tedim Township, Chin State?"
>
> What is the impact of water shortages on health? Work? Leisure? Education? Does the situation affect relationships between villagers/ family members? Does it affect girls/ boys, young/old differently?

From there, begin brainstorming the questions you want to ask your participants. Think about the types of questions that will lead you to find answers to your research question. Of course,

your methods will affect the questions too—the way you ask questions will be different for interviews as compared to questionnaires (remember that in this case the researcher was doing a qualitative study using FGDs). You can use a table to organize your thoughts:

Research question	What do I want to know?	Actual questions for participants	Possible follow-up questions
"What is the impact of water shortages on the community members in Tuivial Village, Tedim Township, Chin State?"	Impact on relationships	Do the water shortages affect relationships in your families/households? How?	What do you think can be done to change that?

- Do not forget to collect data on gender and age so that your research reflects the experiences of women and girls as well as men and boys.
- Try to create questions that are inclusive and are not based on gender stereotypes. For example, if you are researching childcare, do not exclude men from the sample or create questions that assume that childcare is managed by women only.

It is important to not confuse your research question with actual questions for your participants. Normally, we do not ask our research question to our participants directly, because it is quite a "big" question and would be challenging for participants to answer at once. That is why we "divide" our research question into smaller parts and ask the participants each of these more specific questions separately.

When developing your questions, you should think about how the questions will be understood by your participants. Here are some tips from Kumar (2011) and Denscombe (2010):

- Use simple language that ordinary people will understand and adapt your language depending on the target population.

- Avoid asking questions that are not easy to understand; for example, "What do you think about the latest news about China?" (Participants will probably not know which news story you are asking about).
- In questionnaires, avoid asking two questions in one; for example, "Do you think the authorities should dig a well and collect rainwater?" (Participants might agree about the well and disagree about collecting rainwater).
- Be careful not to repeat questions using different wording (e.g., "Do you have children?" and "How many children do you have?").
- Do not create leading questions. Leading questions are ones that lead respondents to a particular answer. For example, if you ask, "What problems are caused by the water shortages in your village?" you are assuming that there are problems. "Problems" is not a neutral word. "What are the effects/consequences of water shortages in your village?" would be better.
- Give enough options (in the case of close-ended questions).
- Think about the order of the questions. Do not start with very sensitive questions.

You will probably have to draft and re-draft your questions many times before feeling satisfied enough to test them during the pilot study (see *Chapter 8: Doing a Pilot Study*)—this is a normal part of the process, and it shows that you have thought deeply about the data you want to collect.

Clear instructions

When collecting primary data, the instructions, and explanations you give to the participants must be clear. In the case of interviews or FGDs, you should plan the key components to mention, such as:

- Background information
- The purpose of the study
- The names and contact details of the interviewers/facilitators/researchers and institution/organization, if relevant
- The name of the sponsor of the research (who is paying for it)
- An explanation of participants' rights (see *Chapter 11: Ethics and Risks*).

Do not forget to thank the participants at the end and tell them about the next steps. You can organize the instructions and questions in one document called an "interview guide" or a "focus group discussion guide" so that you have everything in order and you do not forget any part. You should then remember to bring this guide with you when you finally collect your data. You can find examples of what such guides look like in the links listed in the *Further reading* section below.

In the case of questionnaires, you will probably not be present to explain or clarify anything, so the questionnaire should include a participant information sheet with the essential information (see *Chapter 11: Ethics and Risks*). It is also particularly important to make sure the questions are very clear—pay close attention to the tips for developing questions above, and make sure to only include questions that are necessary for answering your research question.

Think about a time you were involved in something (a class, meeting, task) when the instructions were not clear. What were the outcomes?

Activity 7.1.

Go back to *Chapter 5: Choosing the Right Methodology* and have a look at the questionnaire and interview questions. What types of questions are used: open-ended or close-ended?

Activity 7.2.

Complete the table with the advantages and disadvantages of open-ended and close-ended questions.

Open-ended questions	
Advantages	**Disadvantages**
	Can be harder to analyze the data
Close-ended questions	
Advantages	**Disadvantages**
Data can be easier to analyze	

Activity 7.3.

Compare the following interview questions from different research projects. Why do you think the questions were changed?

Draft 1	Draft 2	Possible reason(s) for change
What do you think about diversity in the workplace?	What do you think about ethnic diversity in the workplace?	Not specific enough—participants might talk about different types of diversity (e.g., age, gender, class)
As a Kayah person, do you feel you are being treated equally by the national government?	As a person from Kayah State, do you feel you are being treated equally by the national government?	
Do you feel discriminated against by teachers at the school?	Do you feel discriminated against? If yes, by whom?	
What difficulties have you faced as a female engineer?	What is it like being a female engineer when most your colleagues are men?	
Do you think, given the current economy, that many men and young women will try to move abroad to Singapore or Malaysia to try to find a job and a better life and send money home?	Do you think there will be any migration because of the state of the economy?	

Activity 7.4.

Compare the following questions from different questionnaires. Why do you think the questions were changed?

Draft 1	Draft 2	Possible reason(s) for change
Do you have any previous work experience in research and advocacy? a. Yes b. No	Do you have any previous paid work experience in research? a. Yes b. No Do you have any previous paid work experience in advocacy? a. Yes b. No	
According to recent data, 80% of people support independence. Do you agree?	Do you support the independence movement? a. Yes b. No	
What MHPSS services would you like to see being provided by INGOs in your state?	What mental health and psychosocial support services would you like organizations to provide? Select all that apply. ☐ Talk therapy ☐ Medication ☐ Women's self-help groups ☐ Men's self-help groups ☐ Storytelling groups ☐ Youth groups ☐ Other: _____	
What is your ethnicity? ☐ Bamar ☐ Shan ☐ Kachin ☐ Chin ☐ Rakhine ☐ Mon ☐ Karen ☐ Karenni	What is your ethnicity? _____	

Draft 1	Draft 2	Possible reason(s) for change
Membership of the Association of Southeast Asian Nations (ASEAN) is good for Myanmar. a. Agree b. Disagree	Membership of the Association of Southeast Asian Nations (ASEAN) is good for Myanmar. Strongly agree (1) / Agree (2) / Neither agree nor disagree (3) / Disagree (4) / Strongly disagree (5)	

Your project

Think about your chosen research question, methodology, and data collection methods and start drafting discussion points and/or questions.

You can get ideas from the examples and activities in this chapter as well as by reading research reports on your topic and similar topics. You can also use Appendices 1 and 2 to guide your brainstorming and drafting process.

Further reading

Denscombe, M. (2010). *The good research guide for small-scale social research projects (4th ed.)*. Open University Press. https://b-ok.africa/book/1179394/d12524

Ellsberg, M. & Heise, L. (2005). Tools for collecting qualitative data. In *Researching violence against women: A practical guide for researchers and activists*. World Health Organization, PATH. https://path.azureedge.net/media/documents/GBV_rvaw_ch9.pdf

Kumar, R. (2011). *Research methodology: A step-by-step guide for beginners*. Sage. https://b-ok.africa/book/2647081/5d2269

Dai, R., Feng, H., Hu, J., Jin, Q., Li, H., Wang, R., Wang, R., Xu, L. & Zhang, X. (2020). *ESIEC2020 Questionnaire on the resilience of micro, small and medium enterprises under the new coronavirus outbreak (Covid-19)*. https://www.cgdev.org/sites/default/files/coronavirus-SME-survey-instrument-english.pdf

8 Doing a Pilot Study

By the end of this chapter, you should be able to:

- Explain the purpose of doing a pilot study.
- Plan a pilot study for your project.

A pilot study is a small practice version of your research data collection. We use pilot studies to test whether our prepared methods work well and are easy for participants to understand. Basically, a pilot study is done to find out whether you need to change any part of your plan. Even if you have carefully planned your data collection and are confident about your methods, you still need to do a pilot study in order to:

- Check if participants will understand your instructions and your questions
- Check if the questions will produce the required data
- Practice your interviewing or facilitation skills (if you choose to do interviews or FGDs)
- Check the time needed to collect the data.

It is a good idea to test your methods on people similar to your target participants. For most studies, two or three participants in the pilot study are enough. Make sure that the participants know it is a pilot study and that you will be asking for their feedback after the session. After the pilot study, talk to your pilot study participants and note down any important suggestions they might have for improving your method. After that, carefully read or listen to the data collected in the study to see if the questions asked can produce the data you are looking for.

Possible outcomes from a pilot study include:

- Certain questions are unclear, so they need to be edited.
- Some questions are unnecessary or repetitive, so they can be deleted.
- A key aspect of the research question is not answered, so questions need to be added.
- The wording of certain questions needs to be changed due to political and social sensitivities.
- The order of the questions needs to be changed.
- Some terms need to be defined before asking the question.
- The time taken to answer the questions exceeded expectations, so the research plan needs to be adjusted.
- The instructions and consent form (see *Chapter 11: Ethics and Risks*) need to be made clearer or changed due to the sensitivity of the topic.
- Careful time management and planning is needed in the real data collection phase.

The above are just some possible outcomes. You might find that very few changes need to be made, or you might even realize that your methods are not appropriate at all! Either way, a pilot study is an essential step of the research process.

Your project

When you have created your research methods (you have created your questionnaire/interview guide/FGD guide), carry out your pilot study, and take note of the feedback and make the necessary changes to your questions or research plan.

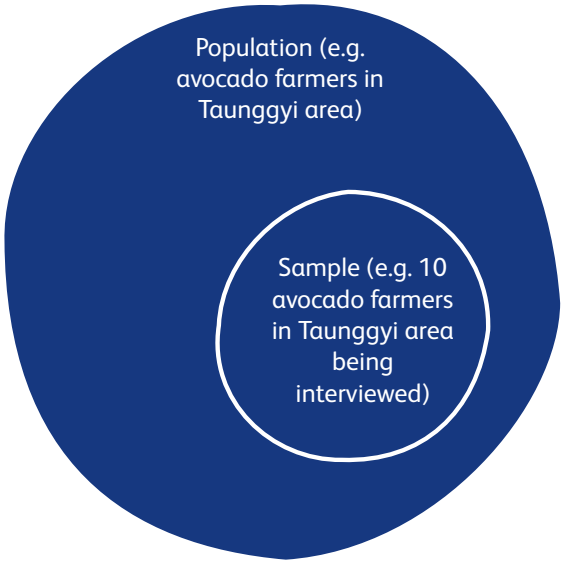
Think about what might happen if you **do not** do a pilot study.

9 Selecting the Sample

By the end of this chapter, you should be able to:

- Distinguish between probability and non-probability sampling strategies.
- Choose a sampling strategy for your research project.

- **Sample:** research participants that participate in the data collection
- **Sampling:** choosing the people who will participate in your research (your sample)
- **Population:** the people you are interested in studying (e.g., avocado farmers in Taunggyi area)
- **Random:** chosen by chance



Your sample (the participants from whom you collect data) and your sampling strategy (how you choose your sample) affect the results of your data collection. This chapter explains different sampling strategies and why they are used.

Defining the research population

Before you decide how you will select your participants (or choose your sampling strategy), you need to clearly define your research population. This is done by creating a set of criteria.

For example, in Gender Equality Network's 2015 *Behind the Silence* report on violence against women and their resilience, the respondents had to fulfil the following requirements:

- "Experienced some form of violence against women, particularly intimate partner violence
- Above the age of 18
- Able and willing to participate in the study
- Of sound mental capacity" (Gender Equality Network, 2015, p. 19).

For example, if your research question is "What factors drove farmers in Taunggyi and surrounding areas to focus on avocado farming?", the criteria could be as follows:

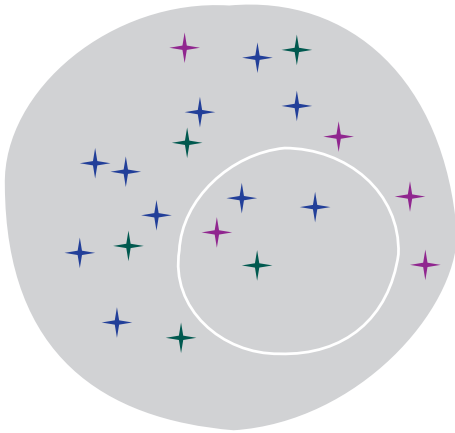
- Must have recently (in the last three years) started growing avocados
- Must have more than five years of farming experience
- Must be able and willing to participate.

Everyone and anyone who meets this description is then defined as your research population.

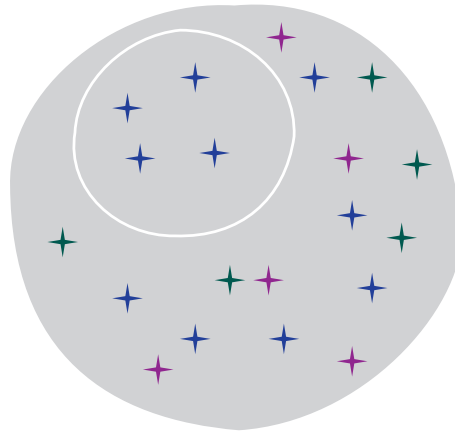
Think about whether you need to make an effort to include a diverse group of people in your project, including men, women, girls, boys from different backgrounds (social, cultural, economic, ethnic, etc.). Depending on the topic and the local context, some groups may be less likely or more likely to participate in research.

Sampling strategies

A **representative sample** is a sample that represents (or reflects) the characteristics of the research population, or in other words, "involves a cross-section of the population" (Denscombe, 2010, p. 24). For example, if all garment workers in Yangon are: 80% female and 20% male, 40% aged 20-30 years, 30% aged 31-40 years, and 30% aged 41+, a representative sample would reflect those statistics. Or, as demonstrated in the figure below, if there are 10 blues, five greens and five purples in the population, your sample should include two blues, one green and one purple. If you only include blues, the sample is not representative:



Representative



Not representative

As mentioned in *Chapter 5: Choosing the Right Methodology*, quantitative researchers usually want to generalize their findings; they want the results of their study to be true for (or apply to) the whole research population, not just their specific sample. That is why a representative sample is important for many quantitative studies.

In contrast, qualitative studies tend to have smaller sample sizes than quantitative studies. This is because qualitative studies do not usually aim to study representative samples; rather, they focus on finding a sample that can provide the information and insight needed (Denscombe, 2010).

Probability sampling is an approach that is best for selecting large, representative samples, as every member of the research population has an equal chance of being selected as a participant in the study. Probability sampling is difficult to do as it requires that you know the entire composition of the research population. In other words, who exactly is included in the population. For that, you either need a list of all the members of the research population (e.g., a database of all garment workers in Yangon) or you need access to the whole research population (e.g., you can visit every household in a specific village).

Probability sampling strategies

Simple random sampling is completely random, like a lottery. This can be done by assigning numbers to the list of potential participants and then selecting numbers at random. For example, if your research population is households in a village and you want to select 80 for your sample, assign numbers to each household and then randomly draw 80 numbers.

Systematic sampling is slightly different to the above. Instead of selecting numbers at random, you select them at certain intervals. If you have a list of 320 households, you can select every fourth household to end up with a sample of 80 participants, for example.

Stratified sampling is when the research population is divided into different groups that are important in some way (e.g., ethnicity, income, occupation). Then, based on the composition of the research population, you figure out how many households should be selected from each group. Then you randomly select from each of the smaller groups. For example, if occupation

is an important characteristic for the study and if 200 households are farming households and 120 mainly work in retail, randomly select 50 from farming and 30 from retail to create a sample of 80. Obviously, this gets more complicated when you have more groups.

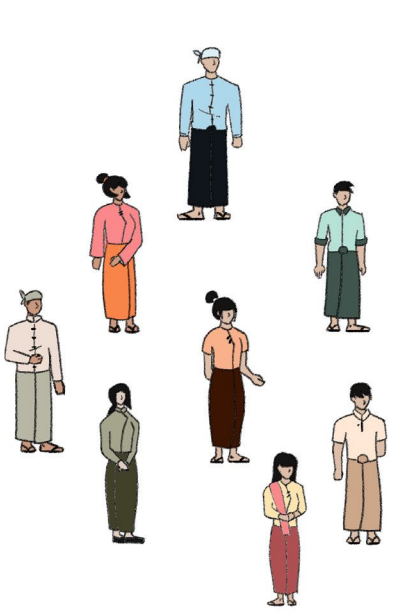
Non-probability sampling is not "random" like probability sampling, and every member of the research population *does not* have an equal chance of being selected. For example, when studying the homeless population in Mandalay, you would not be able to know the exact composition of the whole research population; there is neither a list of all homeless people in Mandalay nor can you find and get access to all of them. Thus, you would have to rely on non-probability sampling. It is important to remember that non-probability sampling strategies can be used for collecting both qualitative and quantitative data.

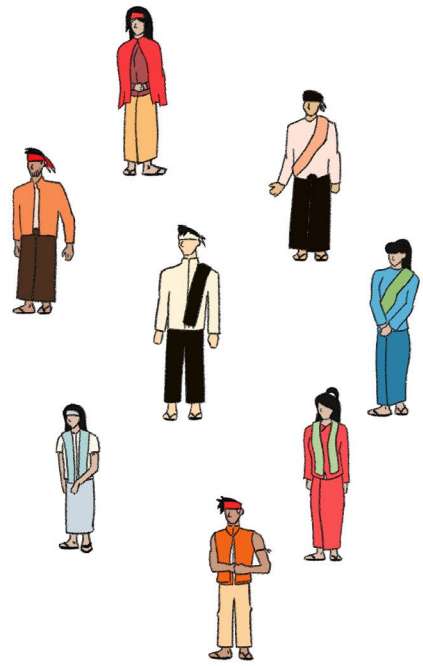
Non-probability sampling strategies

Convenience sampling is selecting participants who are easy to access and willing to participate. For example, in a study on childcare, you might select friends of yours who are parents of children aged 10 and under, because they are willing to support you.

Purposive sampling is intentionally selecting the participants you think are best for your study. For example, if you wanted to do a research study on how it is to live and study abroad, you would select people who know the most about this topic, that is, people who have lived and studied abroad themselves, or perhaps someone who has worked as a support worker for international students.

Snowball sampling is selecting some participants who help you to find more. For example, for a study on deforestation, if you know some environmental activists or conservationists and recruit them as participants, you can ask them to find more people who could be interested in participating in the study.





Sample size

Sample size is particularly important in quantitative research, especially if you want to generalize your findings; in quantitative studies it is therefore best to have a lot of participants. In qualitative studies, the number of participants is not that important as long as you get quality data that answers your research question.

Activity 9.1.

Read the "Settings and Participants" section (pp. 2-3; in the box below) of Fielding-Miller, R., Misi, Z., Adams, D., Baral, S. & Kennedy, C. (2014). "There is hunger in my community": a qualitative study of food security as a cyclical force in sex work in Swaziland. *BMC Public Health, 14* (79). https://doi.org/10.1186/1471-2458-14-79

Key informant interviews are qualitative, in-depth interviews with people ("key informants") who have specific knowledge of the topic you are researching.

Methods

Setting and Participants

After consulting with key informants within the Swaziland MoH, NERCHA, the Swaziland National AIDS Program (SNAP), and NGOs which provide services to sex workers in the country, we focused our research in four different regions: A rural border town where most sex work focuses on truck drivers making their way to or from South Africa, a peri-urban community where most of the women we spoke with sold sex in bars and clubs, and two sites located in the urban Manzini-Mbabane corridor. Most sex work in the Manzini-Mbabane corridor is street-based (these locations are known as "hot-spots"), although some women also work in bars. Our inclusion criteria required that informants were over the age of 18 (the legal age of majority in Swaziland), reported that they had been previously diagnosed with HIV, and sold sex. Other research in the region has demonstrated that the line between sex work, transactional sex, and financial support within a romantic relationship can be blurry, and is largely based on the context and subjective perspective of the women involved [32-34]. To account for this, our criterion for sex work was self-identification as a sex worker. Although we had no exclusion criteria based on the last time a woman had sold sex, most participants were actively engaged in sex work at the time of data collection. Participants were recruited through support groups and peer education networks run by government public health clinics and local NGOs. NGO staff and public health nurses who worked closely with these groups were asked to refer women who were living with HIV to the study staff. If potential participants expressed interest, they were invited by the referring NGO staff member or nurse to meet the study staff at a pre-arranged interview location. Further participants were then recruited using snowball sampling methods [35].

Then, answer the following questions:

1. What three criteria defined the research population?

    1.

    2.

    3.

2. What sampling strategy was used?

3. What were the steps taken to carry out the sampling strategy?

Your project

Decide which sampling strategy you will use based on your chosen methodology, methods, and resources available.

Remember that a large sample size is preferable for quantitative studies.

For both quantitative and qualitative studies your research question is key and focusing on what it is you want to find out from your study will help you choose a sampling strategy.

Further reading

Kumar, R. (2011). Chapter 12: Selecting a sample. In *Research methodology: A step-by-step guide for beginners*. Sage. https://b-ok.africa/book/2647081/5d2269

10 Preparing for Data Collection

By the end of this chapter, you should be able to:

- Recognize the importance of taking good notes.
- Practice active listening.
- Plan and prepare for your data collection period.

In the planning stages of your data collection period, it is important to be aware of certain skills you might need and things you should prepare.

Building trust with participants is crucial in every research project. Think carefully about how you will approach and communicate with them. For instance, showing respect and understanding of the cultural context (the local values, practices and—often unspoken—rules and norms) is very important. If you are not familiar with the cultural context of your research population, try to get local contacts who can help you to understand the environment and the people as this can significantly improve your communication with participants. For example, in some communities it may be considered rude to disagree or express doubt in front of respected figures such as teachers. This could affect how participants interact with you or with each other, so it is important to be aware of cultural differences between where you come from and where you conduct your research. You should also dress in a way that is respectful of the customs and culture and think about any sensitive issues that may cause participants to feel uncomfortable.

In order for your participants to feel more comfortable during data collection, you should be able to clearly and confidently introduce yourself, your research project and its objective(s). For example:

> "Thank you very much for participating in my research project on the avocado farming in the Taunggyi and surrounding areas. As you know, I am a community researcher from Loikaw, and I want to understand your experience of changing to avocado farming and how it has affected your daily life. The discussion should take about 45 minutes to an hour. Is that okay with you?"

A strong introduction will start you off on the right foot.

If you were participating in somebody else's research study, what do you think would affect *your* trust towards the researchers?

For interviews or focus group discussions (FGDs)

Preparing your materials

For interviews and FGDs you also need to print your guides, consent forms, and information sheets. These should be professional, tidy and kept safe. Also have a notebook and enough pens and pencils for your notes.

Think about the relations between genders. In some cases, it may be appropriate to have single-sex interviews or FGDs (i.e., only men or only women), as some people might not be willing to discuss openly in mixed groups. For example, many women may not be comfortable talking about relationship problems in front of men.

Active listening

Active listening is crucial for interviews and FGDs. Active listening is paying full attention to the speaker and showing them that you are listening properly. Here are some signs of active listening:

- Using body language, such as smiling and nodding your head
- Using short phrases to show interest in what the participant is saying, such as "I see," "Yes," or "I understand"
- Getting clarification from the participant, for example by saying "Could you please repeat that?" or "I'm sorry, but I'm not sure what you mean".
- Showing you understand by paraphrasing the participant's message by saying something like "So what you're saying is…" or "If I understand you correctly…"
- Summarizing the participant's points.

Whatever phrases you use in the interviews or FGDs should feel natural to you. You do not have to use the suggested phrases or translations of them—you should say what feels right in your own language.

Participants may not think you are listening if you appear restless or move too much (e.g., bounce your leg or play with your pen), use too little or too much eye contact, or do not react to what they are saying at all. If you only focus on taking notes and not on the person speaking, they may feel uncomfortable.

Recording interviews and FGDs

It is recommended that you record your interviews and FGDs to make it easier to analyze the data. You will need a recording device or smart phone that has enough storage for the recordings. After the interview or FGD, you should make a copy of the recording to a computer or secure online folder, such as mega.io or sync.com, as soon as possible. Some researchers like to record on two different devices at the same time so that even if there is something wrong with one device, they will not lose the data.

Recording should only be done with the participants' full informed consent (see *Chapter 11: Ethics and Risks).*

Note taking

Although it is recommended that you record your interviews and FGDs, you should also take notes of anything that you think is particularly interesting or relevant during the interview or discussion, like participants' body language or things to follow up on. In addition, taking notes can help you to listen and focus on what the participants are saying. During interviews or FGDs, you should take notes by hand because typing on a laptop can be distracting for participants.

Good notes are short, organized (perhaps by topic), include the most important points of information, as well as the source of the information (e.g., interview with U Aung Myat, January 22, 2022, 4:30 pm), and are usually written in your own words. Writing notes in your own words helps you to focus on the information and understand it better. If you are writing down exactly what a participant said, make sure you use quotation marks.

After your interview or FGD, immediately take notes of your impressions, observations, ideas, questions, feelings, and thoughts while the experience is still fresh in your mind. This helps you to process the information and start connecting ideas discussed by the participants.

For questionnaires

Preparing your materials

For either online or paper-based questionnaires you should make sure that your introduction and written instructions are easily understandable. Sometimes, you might not have the opportunity to build trust through face-to-face interactions with every single participant, so the participant information sheet and consent form are key: they must be clear and look professional. There are examples of a participant information sheet and a consent form in *Chapter 11: Ethics and Risks*.

If you are using paper-based questionnaires, print them ahead of time and make sure they look professional and tidy and are kept safe. Remember to prepare more copies than you need, along with the participant information sheets and consent forms. You also need to make a distribution plan: how will you get the questionnaires to the participants? Are you going to travel to the locations yourself, use a delivery service, or use a network of trusted friends or colleagues? Similarly, how will you collect the completed surveys?

Managing your time

Another thing to consider is that if you use paper-based questionnaires, you will need time after data collection to enter the data into Microsoft Excel or another program. If you use online questionnaires, this can be done much more easily and quickly.

Activity 10.1.

Watch the YouTube video Eelderink, M. (2016, February 13). *Semi-structured interviewing as a Participatory Action Research method* (https://youtu.be/cGQz8hZQ8fU) and answer the following questions:

1. How does the interviewer start the process?
2. How does the interviewer get permission to record the interview?
3. Does the interviewer take notes? Does her note taking distract the participant?
4. What active listening techniques does the interviewer use?

Activity 10.2.

1. Imagine you are an ordinary member of your community. A researcher contacts you through a friend to ask about the culture of your community and about any sensitive issues they should be aware of. What would you tell the researcher?

2. Case study

A young male researcher, who is not a Muslim himself, is carrying out mixed methods research on vaccination levels of Muslim children in his community. He wants to find out: 1) At what rate do Muslim children have routine childhood immunizations/vaccinations? 2) Do Muslim children, on average, get fewer or more vaccinations when compared to Buddhist children in the community? and 3) What are the reasons why Muslim parents choose to vaccinate their children or not?

To find answers to the third question, the researcher wants to carry out qualitative interviews with Muslim parents. When selecting the sample, the researcher comes across some cultural differences:

- Some of the Muslim women will not speak to an unfamiliar man.
- Many of the men who want to participate in the interviews want to speak on behalf of the family.
- Some of the population distrust the researcher due to tension between Buddhists and Muslims in the area.

What do you think the researcher can do? What are his options?

Your project

Create an action plan for your data collection. What will you do when, using which resources?

You can use this table as a template:

	Action steps	By whom	By when	Resources available	Resources needed	Communi-cation
	What needs to be done?	Who will do it?	What is the deadline for this step?	What resources do you already have?	What resources do you need?	Who do you need to contact/ inform about this?
1						
2						
3						
4						
5						
6						

Further reading

Dawson, C. (2002). *Practical research methods: A user-friendly guide to mastering research techniques and projects*. How To Books. https://b-ok.africa/book/449067/0eae06

11 Ethics and Risks

By the end of this chapter, you should be able to:

- Recognize and explain informed consent and participants' rights.
- Carry out a risk assessment for your research project.
- Take steps to improve your digital security.

- **Ethics:** ideas about what behavior is right or wrong
- **Ethical:** morally good, right, correct
- **Risk:** something dangerous or bad that might happen
- **Taboo:** something that is not talked about because society thinks it is wrong or embarrassing
- **Anonymous:** unknown or not known by name
- **Confidential:** kept secret
- **Criticism:** sharing (negative) opinions of something
- **Informed:** having knowledge and understanding
- **Consent:** permission/agreement; to agree to do something
- **Informed consent:** agreeing to do something with full understanding of what you are agreeing to

All researchers should behave in such a way that is respectful and honest. Ethics differ across cultures, but you should try to make sure that:

1. Your research project has value and will not create harm. If there are some risks involved, the benefits (the contribution of your research) should be greater than the risks (the potential discomfort of your participants).
2. You respect people's rights and treat them equally and with respect. This includes their right to privacy.
3. You are honest and clear about the aims of your research and your participants give informed consent (see below).
4. You honestly report your methods and results (you do not misrepresent or lie about your research process and findings), and you include references to the sources you used (you do not plagiarize).

Risk assessment

A risk assessment involves thinking about the possible harms or dangers that could affect the participants, the project, or yourself (the researcher) as a result of you conducting your research. Assessing the potential risks helps you decide how to reduce those risks or change your data collection plan if it is too risky.

Consider gender-specific risks and actions that can be taken to minimize risks. If you are researching in a conflict zone, young male participants may be at a greater risk than women of forced recruitment into armed groups, but women may have been victims of sexual violence, for example.

Risks can include social risks (e.g., a participant might risk being shamed by the community for participating in research related to LGBTQIA+ rights), legal risks (e.g., researchers and participants may risk being arrested for meeting in large groups), and health and safety risks (e.g., risk of contracting Covid-19 or risk of fighting breaking out in a conflict zone).

Given the many different possible risks, it is very important that you do a full and detailed risk assessment before asking people to participate in your research project. Once you have thought about the potential risks, you can take steps to reduce them. For example, if you were about to interview jade mine pickers in Hpakant, Kachin State, about their daily lives, a thorough risk assessment would make you realize that you need to be very careful about keeping your participants anonymous and your data safe because there are many illegal activities taking place in the area. You can use the risk assessment template in *Appendix 3*.

Informed consent

Your research participants must give their full, informed consent to participate in the research. This means that they fully understand what they are participating in and agree to participate voluntarily without being pressured. This is their right. To make sure that the participants can give their full, informed consent, you should:

Introduce your research project and explain the purpose. You can do so orally or give them a Participant Information Sheet (see below).

- Explain what the data collection will be like and how long it will take.
- Tell them about any risks involved and what steps you have taken to reduce these risks.
- Tell them who will be able to access the data and if they will be anonymous or not.
- Give them the name and contact details of someone they can talk to if they have questions about the research.
- Tell them that they do not have to answer anything they do not want to, and they can stop at any time. This is one of their rights as a participant.
- Give the participants sufficient time to decide if they want to participate.

If you would like to work with vulnerable populations (e.g., children, victims of violence, people with disabilities or health conditions), please seek guidance from experienced researchers and the relevant experts (e.g., experts in child rights and protection, psychologists, social workers) as you should be extra careful not to do harm.

Once you have done the above, ask willing participants to sign an informed consent form. This form usually includes the participants' full names and a list of statements (see example below).

In some cases, participants may not want to risk having their name written on a piece of paper associated with the research project if the topic is sensitive. In this case, it is acceptable to get their consent orally (the participants will simply tell you that they agree to participate instead of writing it down).

Another thing to consider is that sometimes, the participants you are working with may not be able to give full informed consent. For example, young children may not fully understand the research and the consent form, but they should still be able to show or express their willingness to participate, and you must also get consent from their parents or guardians.

Below is an example of a participant information sheet that you can use to draft your own. Some research projects may require a more formal letter, but the essential information you need to include is the same.

Participant information sheet

Research title: The use of corporal punishment in primary schools in rural Rakhine State.

We are assistant lecturers at a teacher training school called Teach for Change in Sittwe, Rakhine State. We are doing a research project on the use of corporal punishment (hitting, beating, or other physical punishment) in primary schools in rural parts of Rakhine State.

The purpose of this research is to find out if corporal punishment is used in primary schools in rural Rakhine State, and, if it is, why teachers choose to use it. The results will help us to address the issue of corporal punishment among teachers. The interviews will take around 30-45 minutes, and we will ask you about 10-15 questions. We would like to record the interview using our phones, with your permission.

As a primary school teacher in a rural area of Rakhine State, we would be grateful for your participation in this research. If you agree to participate, you can refuse to answer any question or stop the interview at any time without having to give a reason. The discussion from the interview will be used to write a research report and we will keep all information confidential and securely stored.

If you would like to know more about this research, please phone Min Lin on 0972266XXXX or via Signal at 0978811XXXX.

Once the project has been explained to the participants, they can complete the consent form. Below is a template of an informed consent form, but this should be revised to suit your methods and the risks involved (e.g., you may not want to include your phone number on the form).

Informed consent form

Research title:

Researcher name(s):

Institution:

Email address:

Phone number:

Please carefully read the following information and tick Yes or No.

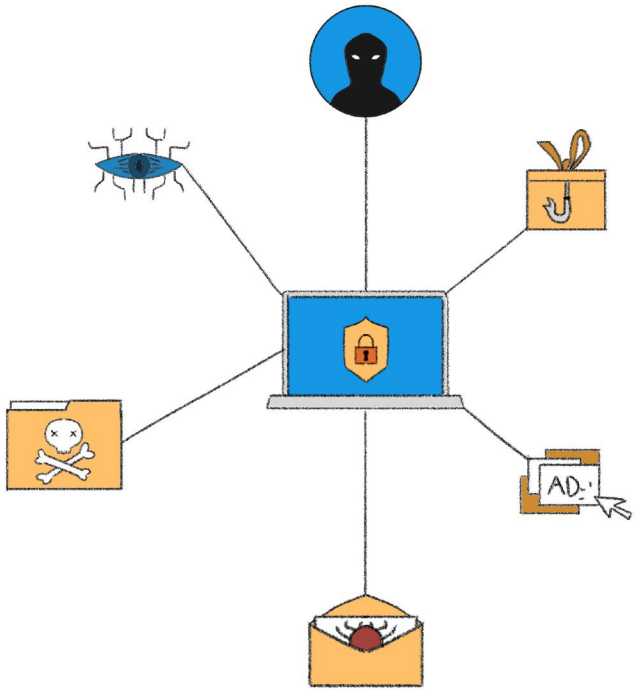
Then, if you agree to participate in the study, sign below.

		Yes	No
1	I have carefully read the information about this research project, and I understand the purpose of the research.		
2	I understand that my participation is voluntary, and I can stop participating at any time without giving a reason.		
3	I allow the interview to be recorded (audio only).		
4	I understand that what I say in the interview will be used for the project findings.		
5	I understand that my words may be quoted in the research report.		
6	I agree for my name to be used in the research report (which will be published and widely available).		
7	I understand that my data will be kept securely and only the researchers will have access to my data.		
8	I agree to participate in this research.		

Name:

Signature:

Date:



Digital security

There are increasing risks of information and data being accessed by others, especially if your topic is politically sensitive. In order to keep your data, participants' personal information, and other sensitive information safe, you should carefully follow these digital security tips:

- Protect your devices with strong passwords, not with fingerprint or facial recognition.
- If possible, use end-to-end encrypted messaging (e.g., Signal) for communicating with participants. This means that your messages cannot be hacked—they can only be seen on your device and on the receiver's device.
- If you need to use ordinary phone calls and SMS, be careful about the information you share and, if possible, confirm who you are talking to by asking a security question such as "How do we know each other?" or "When did you last see me?"
- Encrypt your email account (by using Virtru or another app or extension) or create a Proton Mail account and use that instead. Make sure to always log out after using your email account and do not save your passwords on your computer.
- Make copies of your data and sensitive information in secure online folders such as sync.com or mega.io. If your research topic is sensitive, you may want to avoid keeping information on your devices in case they are searched.
- Be aware of cybersecurity laws (e.g., know how you can safely and legally contact your participants).

Activity 11.1.

The following scenarios show what can go wrong if you do not fully prepare and assess the risks.

Scenario 1

You are researching the impact of Covid-19 on the job market in Magway. You planned your project and methods, prepared the focus group discussion (FGD) guide, risk assessment, participant information form, and informed consent form, and you selected your sample.

Because FGDs involve multiple participants, you want to record the session. It might be difficult for you to take accurate notes because the participants are speaking in Burmese, which is your second language. You include permission to record in your informed consent form, and all the participants agree.

30 minutes into one of the FGDs, one participant becomes frustrated and wants you to delete the recording. You are worried that your notes are not good enough because you were concentrating on listening to the participants and facilitating the discussion, and you were going to rely on the recording for the details. The other participants do not mind if you keep the recording.

What do you do?

Scenario 2

You are researching a highly sensitive political issue using in-depth interviews with experts and political actors. You have discussed confidentiality with the participants; you explained to each individual that there will be 11 other participants and neither they nor anyone else will know the names, positions, or organization of the other participants, but that, if they agree, you will refer to their areas of expertise. For example, "an expert in community forestry in Tanintharyi Region" or "an individual experienced in strategic armed combat." They agree, and they also consent to being quoted in your research report.

After you publish your report, you get a phone call from one of the participants telling you that they are being harassed about their involvement in a research report that has upset some key political figures. The participant wants to know how other people seem to know about their involvement since you promised confidentiality.

What do you do? What do you say to the participant?

Activity 11.2.

Imagine you are planning to interview individual ("*yemase*") jade mine pickers in Hpakant, Kachin State, about their daily lives.

Complete the template below to assess the risks involved. If you need more context on jade mining in Hpakant, you can read Fishbein, E., Aung Lamung & Hkun Lat. (2020, August 15). In Myanmar's largest jade mining town, the semi-precious stone prized by Chinese costs more than money. *Pulitzer Center*. https://pulitzercenter.org/stories/myanmars-largest-jade-mining-town-semi-precious-stone-prized-chinese-costs-more-money

A: Risks to the researchers				
No.	**Question**	**Yes/No**	**Probability of risk (low, medium, high)**	**Action to be taken**
A1	Will you be collecting data in an area you are not familiar with?			
A2	Will you be collecting data in an unstable area?			
A3	Will you be collecting data on a politically sensitive topic?			
A4	Will you be collecting data on a culturally taboo topic?			
A5	Will you be collecting data alone or staying in the data collection area alone?			
A6	Will your travel involve risks (roadblocks, poor road conditions, health care, security)?			
A7	Are there any other risks that you could face?			
B: Risks to participants				
No.	**Question**	**Yes/No**	**Probability of risk (low, medium, high)**	**Action to be taken**
B1	Will your participants be children (under 18) or not be fully able to give informed consent?			
B2	Will you provide a full explanation of the research before they agree to participate?			
B3	Will participants remain anonymous?			
B4	Will your data collection include sensitive topics, such as violence, physical or psychological disorders, drug or alcohol use, criminal behavior, or sexuality?			

No.	Question	Yes/No	Probability of risk (low, medium, high)	Action to be taken
B5	Will your data collection possibly include information regarding participants' involvement in illegal activities?			
B6	Will your data collection possibly include participants discussing or thinking about bad memories?			
B7	Will your data collection possibly include criticism of governments or other institutions?			
B8	Will your data collection possibly lead to conflict between participants?			
B9	Will data be kept confidential?			
B10	Will data be securely stored?			
B11	Will your participants face any other risks in their daily life or work due to their participation in your research project?			

Your project

1. Carry out a risk assessment for your project using the template in *Appendix 3*.
2. Create an informed consent form using the template in *Appendix 4*.
3. Create a participant information sheet (if required) for your project.
4. Use *Appendix 5* to check if you are ready to go ahead with your data collection.

Further reading

Denscombe, M. (2010). Appendix 1: Research Ethics. In *The good research guide for small-scale social research projects (4th ed.)*. Open University Press. https://b-ok.africa/book/1179394/d12524

12 Analyzing and Interpreting Qualitative Data

By the end of this chapter, you should be able to:

- Distinguish between codes, categories, and themes in qualitative data analysis.
- Carry out basic analysis and interpretation of qualitative data collected from interviews or focus group discussions.

- **Transcribing:** listening to recordings and writing down exactly what you hear word-for-word
- **Coding:** creating keywords for sections of data
- **Pattern (in data analysis):** a kind of structure or organization of data that becomes clear when some of it is repeated often enough and/or in predictable ways
- **Interpreting:** explaining the meaning of something according to your own understanding

You need to analyze the data in order for it to be meaningful and valuable knowledge. A large number of answers to questionnaires or interview questions is not useful unless you can analyze, understand, and present what people can learn from it. In this chapter, you will get a basic introduction to qualitative data analysis.

Preparing the data

Before you begin your analysis, **transcribing** needs to be done. This means listening to recordings and writing down word-for-word what participants said in the interview or focus group discussion (FGD). To transcribe, you listen to the recordings and write down exactly what you hear, which might mean listening to the same phrase several times. This can be a long and tiring process if you have a lot of interviews/FGDs to transcribe, so some research teams ask for help from professionals or volunteers. Make sure you either have enough time to do it yourself or enough money to pay for help. Some researchers like to do it themselves to get to know their data really well—not only in terms of *what* participants said but also *how* they said it (e.g., the tone of their voice). If you have not been able to record every interview or FGD, at this stage you should review and organize your notes.

When you have finished transcribing, you will have a lot of text to go through. It is best if you can organize the data in a way that is easy to read. Below is an example of data combined into one table so that the researcher can see participants' answers to different questions at once and easily compare them. This, and the other examples in this chapter, are just examples and are not from actual studies.

Participant A	**Participant B**	**Participant C**
Question 1: How did the first Covid-19 lockdown affect your child(ren)'s mood?		
At first, the kids were their usual happy selves and didn't notice anything serious going on. But after about two weeks of lockdown, they started to get frustrated and even threw tantrums over small issues. We never had many tantrums before.	It was awful! Because we couldn't give them our full attention and they were locked up at home, they became so restless and hyperactive. They were quick to anger, though the youngest one was a bit better.	After a few days my son got angry easily. He definitely used to be better at managing his emotions. But when I stopped working and was able to focus on him, he was much happier. So, I think it was the lack of stimulation bothering him.
Question 2: Did you find that their sleep was affected?		
I didn't notice any major difference, but on days when they couldn't play outside they were not as tired so they went to sleep later. I think they've always been like that.	Not really, no. Thankfully they still managed to sleep through the night and follow their normal bedtime routine.	I think it was affected a bit. He wasn't as active, but he seemed sleepier in the afternoons.

Question 3: Did you have much support or help with the kids during the lockdown?		
Well, my husband was also working from home, so we tried to share responsibilities, but other than that I had no help.	We live with extended family, so we are lucky in that sense. My mother-in-law and sister-in-law helped a lot with cooking and cleaning, and sometimes occupying the children when my husband and I were busy.	No, I'm a single father and I don't have any family nearby. Since the lockdown was strict and we were quite scared of Covid, we couldn't get anyone to help out. That's why I stopped working for a while – I wasn't able to take good care of him by myself while trying to work from home.

This table format might not be practical if you have a lot more participants and questions, so you can just use transcripts in a Word document instead.

Reducing the data

In qualitative data analysis, you need to organize and simplify the data you have collected without losing the meaning. This is sometimes called "data reduction."

In the **first phase** carefully read through the transcripts and listen to the recordings. Get to know your data well and take notes of your first impressions. At this point you might already catch some of the main ideas your participants have shared with you. Read the transcripts again, make sure you really understand what is being said or talked about and see if you can find more ideas or topics of interest. Qualitative data tends to be very rich (provide a lot of information), so you may need to read it or listen to it many times to deeply understand it.

The **second phase** involves coding the data. First, you create **codes**, which are basically keywords to label sections of the data. You can code phrases, sentences, or paragraphs. This method helps you to identify common ideas or topics in the data and get to know the data in a manageable and systematic way. Some sections or sentences may have more than one code, as in the example below.

"I have been lonely, and losing my job was really hard, but I have to say that my priorities really changed, which was one of the big impacts. I realized that I want to spend more time helping others and less time chasing money."	Loneliness Job loss Priorities changed

So how do you know what to code? You should code anything that you think is interesting, relevant to the research question or related literature, or that you find surprising or unexpected. You should also look out for words that are frequently used by participants, and ideas or opinions that are repeated. You might also be interested in participants' word choices; for example, if you are researching an armed group's attitude towards women, you could be interested in coding the different words used to describe women, such as "strong," "emotional," "weak," and so on. The number of codes you have will depend on 1) how much data you have; 2) how rich the data is; and 3) how broad or narrow the research topic is. Some studies have hundreds of codes, and some only tens.

If you are working in teams, you should keep a list of your codes and their definitions and examples so that your team can follow the same interpretation of the codes.

Most beginner researchers code their data either by hand:

Interviewer: How did the first Covid-19 lockdown affect your child(ren)'s mood?	
Participant A: At first, the kids were their usual happy selves and didn't notice anything serious going on. But after about two weeks of lockdown, they started to get frustrated and even threw tantrums over small issues. We never had many tantrums before.	mood change frustration (kids) tantrums
Interviewer: That sounds hard. What do you think was causing their frustration?	
Participant A: Just not being able to do ordinary things, I suppose… like go to school, see friends, play actively with other kids, I guess. But who knows… Maybe they were also feeding off our energy because we were struggling too.	Missing other kids + play Struggling (parents)
Interviewer: You and your husband?	
Participant A: Yeah.	
Interviewer: Did you find that their sleep was affected?	
Participant A: I didn't notice any major difference, but on days they couldn't play outside they were not as tired so went to sleep later. I think they've always been like that.	no effects on sleep

Or using comments or a table in Microsoft Word, which makes it easy to copy and paste later:

Interviewer: How did the first Covid-19 lockdown affect your child(ren)'s mood?	
Participant A: At first, the kids were their usual happy selves and didn't notice anything serious going on. But after about two weeks of lockdown, they started to get frustrated and even threw tantrums over small issues. We never had many tantrums before.	Mood change Frustration (children) Tantrums
Interviewer: That sounds hard. What do you think was causing their frustration?	
Participant A: Just not being able to do ordinary things, I suppose… like go to school, see friends, play actively with other kids, I guess. But who knows… Maybe they were also feeding off our energy because we were struggling too.	Missing other kids and play Struggling (parents)

Interviewer: You and your husband? *Participant A:* Yeah. *Interviewer:* Did you find that their sleep was affected? *Participant A:* I didn't notice any major difference, but on days they couldn't play outside they were not as tired so went to sleep later. I think they've always been like that.	No effects on sleep

In the **third phase** you group the codes into so-called **categories**. To do that, first tidy up your codes: look over all the codes across transcripts and find those that are named differently but describe pretty much the same thing. For example, "struggling" and "finding lockdown hard"—these should be considered one code and therefore combined under one title: "struggling."

Then, group different codes that are related to each other and, in this way, create categories. For instance, "struggling" and "loneliness" (when referring to parents) both deal with parents' mental health, so that could be a name for a category grouping these two codes together (with some others—see the table below). Not every code you have created will end up included in a category—some codes might not be related to any other codes or might not be that relevant for your research.

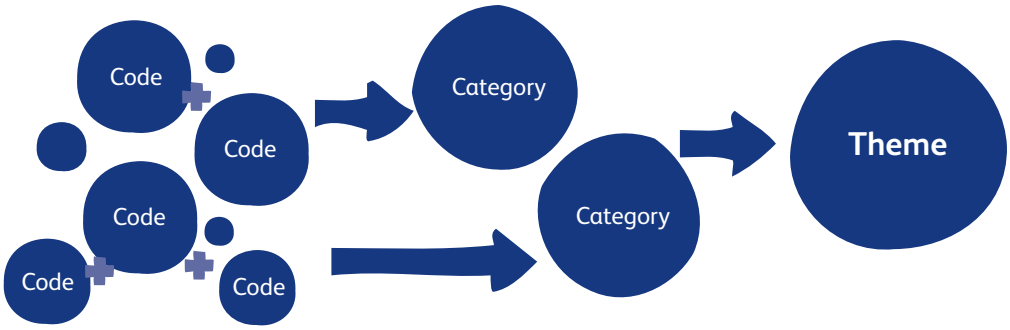
It is a good idea to keep count of how many times each code appears, so that you can see how often something was mentioned and therefore how important that finding might be. Here is an example of some possible codes and categories for a study on the impacts of the first Covid-19 lockdown on families:

Codes	Categories
Transport money (2)	Saved money
Less money on entertainment (1)	
Not eating out (1)	
Increased utility bills (2)	Financial pressure
Less business (4)	
Job loss (3)	
Still paying full school fees (1)	
Frustration (3)	Kids' mental health
Tantrums (2)	
Mood change (1)	
Angry easily (2)	
Long recovery time from meltdowns (1)	
No effects on sleep (3)	
Missing other kids and play (2)	

Codes	Categories
Trouble sleeping (2)	Parents' mental health
Meditating (3)	
Loneliness (5)	
Stress and worry (7)	
Grief (3)	
Struggling (3)	
Single parent (2)	Lack of support
No support from govt. (1)	
No childcare (5)	
Friends busy with own worries and families (1)	

In the **fourth phase** you look for the connections between categories in a similar way you were looking for connections between codes in the previous step. This way, you will find your main **themes.** In the example above, "mental health" could be one theme that you will get by combining the "kids' mental health" and "parents' mental health" categories. "Economic impacts" could be another theme, connecting the "saved money" and "financial pressure" categories to each other. You could also find relationships between the themes; for example, you might find that negative economic impacts also led to worse mental health among parents. There is no set rule for the number of themes you should have, but small community projects may have between four and eight themes.

The figure below visually explains the process of coding: creating codes, grouping them into categories, and grouping those into themes:



Displaying the data

Data display is representing certain data in a visual format, such as in a table, graph, diagram, or infographic. This is not always necessary, but it can help your audience to understand your findings in a presentation or written report and might also help you to find patterns in your data that you did not notice before.

Here are some examples of data display:

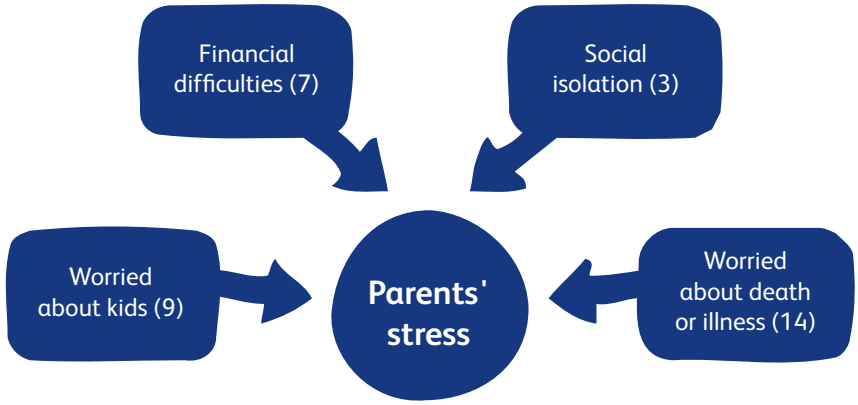
Table 1. Categories and quotations related to mental health

Themes	Categories	Illustrative quotations
1. Mental health		"I think everyone's mental health has suffered at least a small bit. It is also more openly talked about now."
	1.1. Effects on kids' mental health	"[…] after about two weeks of lockdown they started to get frustrated and even threw tantrums over small issues. We never had many tantrums before."
	1.2. Effects on parents' mental health	"I found myself feeling constantly stressed, I had so much tension in my shoulders and jaw. Then the insomnia started. I couldn't sleep because of stress and worry."

Table 2. Sources of stress among parents

Worried about kids	Financial difficulties	Social isolation	Worried about illness or death
Worried about kids' education (2)	Job loss (3)	Missing social interactions (3)	Worried about elderly parents (5)
Worried about kids' social development (3)	Less business (4)		Worried about getting sick themselves (7)
Worried about kids' mental health (4)			Worried about someone who is immunocompromised (2)

Figure 1. Sources of stress among parents



Interpreting the findings

Once you have identified your main findings, the following questions will help you **interpret** (or discuss) them—that is, understand *what these findings mean*:

- Do my findings answer my research question? If so, how?
- What are my major findings, and what makes them important?
- Do any of my findings surprise me? Why/why not?
- What previous literature (if any) is relevant to my findings? Do my findings support or contradict conclusions of past studies?
- How can my findings be used in practice or policy, in the community, or at other levels?

For example, one of the major findings from the example in this chapter could be that parents were more worried about their children missing school than their health, which shows that parents placed strong importance on their children's education. You as the researcher could find this surprising since most news and studies during the Covid-19 pandemic have focused on people's worries about their (and others') health rather than on education. Then, from this finding, and from the finding that children's moods were affected by the lack of interaction with their peers, you could recommend a return to in-person schooling as soon as possible. This is how you use your findings to solve practical problems in real life.

Activity 12.1.

- Listen to a short video (maximum 10 minutes) in the language of your choice.
- Transcribe the audio by carefully listening and pausing it where necessary. Note how long the video is and how long it takes you to transcribe it.
- Use this activity to help you to figure out how much time you will need to transcribe your interviews and FGDs (as required).

Activity 12.2.

Read the following excerpt from the transcript of Eelderink, M. (2016, 13 February). *Semi-structured interviewing as a Participatory Action Research method.* [Video]. YouTube. https://youtu.be/cGQz8hZQ8fU, circle the information that you find interesting, important, or unexpected, and try to think of codes to describe this information. After that, write codes in the right-hand column.

Interviewer: How does a normal day in your life look like from the moment you get up until the moment you get back to bed? *Justine:* To start with, my name is Justine and I sell fruits on a daily basis, so I wake up at five in the morning, I pray of course, and I dress up, I go to the market to purchase what I sell, but that all depends on how much I have. Sometimes I buy things that are less than what I want because I don't have the money to buy everything that I want. Emm… I don't always take breakfast because I cannot manage that with my 10 children. *Interviewer:* You have 10 children? *Justine:* Yes. 10 children. *Interviewer:* So, if I understand you correctly you go to the market in the morning to purchase the fruits that you're selling and breakfast for your 10 children. And you're saying you don't always manage to buy everything you want to buy. *Justine:* Exactly. *Interviewer:* How come you can't buy everything? *Justine:* I am a single mother. Bringing up 10 children by myself is not easy. Sometimes I end up using the profit I have to take care of my children than to sustain my business. *Interviewer:* You use what? *Justine:* I use the money that I would use to sustain my business to take care of my children. *Interviewer:* Oh, does that mean that you then are not able to buy the fruits to then sell and then generate new income? *Justine:* Yeah. *Interviewer:* Okay. How do you deal with that? How do you do it then the next day? *Justine:* Ah it's pretty hard, but then I believe in God, I mean I pray every day, so my day comes, I take it the way it comes… then I use what I have. At least I sell the products that I have. When I get money that I get the money to buy for my kids to eat and then use the small money to go back the next day to the market and buy anything. *Interviewer:* Okay, and that's how you manage to get some new fruit to sell again. Okay. Can you explain me a little bit more about being a single mom? *Justine:* Em… I'm 35… years old, I gave birth to my first child with 15 years. *Interviewer:* 15 years? *Justine:* Yes. So now, I have 10 children, but not from the same dad. My children were born to five daddies. *Interviewer:* Really? *Justine:* Yes. *Interviewer:* So you gave birth when you were only 15 years old. Can you explain how that was for you? To give birth at that age?	

Justine: I've grown up in a place that is too congested, so many people. And they have different behaviors. The youth in my village take… they abuse drugs. They take marijuana, they take miraa… you know? *Interviewer:* (clarifying) They take your…? *Justine:* Miraa… some drug. So as a young girl I couldn't go to school, my parents did not have the money to take me to school. So I saw myself starting with this relationship at a very young age. [end of excerpt]	

Activity 12.3.

Read the "Findings" and "Discussion" sections of McKenna-Plumley, P., Graham-Wisener, L., Berry, E. & Groarke, J.M. (2021). Connection, constraint and coping: A qualitative study of experiences of loneliness during the COVID-19 lockdown in the UK. *PLoS ONE, 16*(10). https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0258344#sec010.

How is the "Findings" section different from the "Discussion" section?

Your project

At this stage, if you have already collected your data, you can start transcribing your recordings (if applicable). Once you have transcribed the data, take time to read it carefully and get to know it. Then, you can move on to coding the data before creating categories and themes.

You can test your understanding of the findings by trying to briefly explain them to a friend. If you find it difficult to talk about your findings in a simple way, you may need to work more on understanding them clearly.

Once you are confident that you understand the findings, work on the interpretation by focusing on the questions under *Data interpretation* above.

Further reading

Denscombe, M. (2010). Qualitative data. In *The good research guide for small-scale social research projects (4th ed.).* Open University Press. 272-307. https://b-ok.africa/book/1179394/d12524

O'Connor, H. & Gibson, N., (2003). A step-by-step guide to qualitative data analysis. *Pimatiziwin: A Journal of Aboriginal and Indigenous Community Health, 1*(1), 63-90. https://www.researchgate.net/publication/292432218_A_Step-By-Step_Guide_To_Qualitative_Data_Analysis

Verdinelli, S. & Scagnoli, N. I. (2013). Data display in qualitative research. *International Journal of Qualitative Methods, 12*(1), 359-381. https://doi.org/10.1177/160940691301200117

13 Analyzing and Interpreting Quantitative Data

By the end of this chapter, you should be able to:

- Prepare quantitative data collected from questionnaires to be analyzed.
- Distinguish between different types of variables.
- Use simple tools to carry out some basic quantitative analysis.

- **Raw data:** data that has not been edited in any way since it was collected
- **Valid:** acceptable and based in evidence
- **Variable:** characteristics, numbers, or quantities that can be measured or counted (Australian Bureau of Statistics, n.d.)
- **Ranked:** listed in order of importance or size
- **Pattern (in data analysis):** a kind of structure or organization of data that becomes clear when some of it is repeated often enough and/or in predictable ways
- **Correlation:** a connection or relationship between two variables where both variables influence each other
- **Causation:** a *causal* connection between variables, meaning a change in the first variable leads to a change in the second variable (but not the other way around)
- **Coincidence:** when two or more things happen at the same time without any reason

You need to analyze the data in order for it to be meaningful and valuable knowledge. A large number of answers to questionnaires or interview questions is not useful unless you can analyze, understand, and present what people can learn from it. Please think of this before you begin your data collection – if you do not know how to analyze the data you are planning to collect, the time and energy spent by your participants as well as yourself during the data collection process will be wasted. In this chapter, you will get a basic introduction to quantitative data analysis.

Preparing the data

Before you begin your analysis, you need to go through your questionnaires and enter all the raw data into a data analyzing program (e.g., SPSS, Microsoft Excel, Jamovi). Entering the data is not only necessary but also helps you check if all the questionnaires are valid and can be included in your analysis; for instance, some questionnaires may be invalid if they are not answered fully or if the respondents do not fulfil your sample criteria. In some cases, one person may have completed the questionnaire more than once.

The process of entering raw data into a program also includes **data coding**. In quantitative analysis, this means that if any of the information you have collected is not in the form of numbers but instead in words (e.g., female or male), you will have to code these answers, that is, label the words as numbers (e.g., Male = 1 and Female = 2).

All questionnaires should be kept in a safe place (either physically or electronically) once the raw data is entered into the software so that you can always refer back to them in case you need to double check anything.

In the questionnaire below, Section 1 has Likert scale questions with numbers, but Section 2 is composed of questions that require answers in both numbers and words. Look at the questionnaire and observe how the word answers in Section 2 have been coded.

A research project that used quantitative methodology

Anonymous. (2019). *Public trust in the Myanmar Police Force: Exploring the influencing factors*. Friedrich Ebert Stiftung Myanmar Office. https://library.fes.de/pdf-files/bueros/myanmar/15643.pdf

Questionnaire on Public Trust in the Myanmar Police Force **Questionnaire no. 1**

SECTION 1

Please answer the following questions by circling one of the options on the scale, ranging from 1= No trust at all to 5 = Full trust.

1. How much do you trust the police to treat people equally?

No trust at all				Full trust
1.	2.	3.	4.	5.

2. How much do you trust the police to treat people with dignity and respect?

No trust at all				Full trust
1.	2.	3.	4.	5.

3. How much do you trust the police to give people a chance to explain their problems?

No trust at all				Full trust
1.	2.	3.	4.	5.

4. How much do you trust the police to make decisions based on the law, not on personal bias?

No trust at all				Full trust
1.	2.	3.	4.	5.

5. How much do you trust the police to take into account the needs and concerns of people?

No trust at all				Full trust
1.	2.	3.	4.	5.

6. How much do you trust the police to have the competence to tackle the problems?

No trust at all				Full trust
1.	2.	3.	4.	5.

7. How much do you trust the police to give explanations for their actions openly?

No trust at all				Full trust
1.	2.	3.	4.	5.

SECTION 2:

Please answer the following questions by filling in the space or circle one of the answers provided.

1. Gender: ……Male……	Male = 1; Female = 2; Other/blank = 0
2. Age: ……32……	[Number – no code needed]
3. Ethnicity: ……Kayah……	Kayah = 1
4. Religion: ……Christian……	Christian = 1

5. Have you ever interacted with police for service or assistance, for example, when asking recommendation for work or school, making ID/ passport, or similar?

A. Yes B. No — Yes = 1; No = 2

6. Have you ever been stopped by the police, for example, because you violated the traffic law or just for a random check?

A. Yes B. No — Yes = 1; No = 2

7. Have you ever been arrested?

A. Yes B. No — Yes = 1; No = 2

8. In general, do you feel like it is easy to obtain help from the police in the community where you live?

A. Yes B. No — Yes = 1; No = 2

9. If No, can you please provide the reason for why it is not easy?

The station is so far away in another village. Police rarely come to our village

The answers to this question will not be coded, because they were not intended to be transformed into numbers (quantitative data) and analyzed. The researchers only wanted to get some additional information about the participants' experiences with the police.

Yes/No questions are coded 1 and 2. For the ethnicity question, Kayah is coded as 1, and other ethnicities would be coded 2, 3, 4 and so on. The same applies for the religion question.

Understanding variables

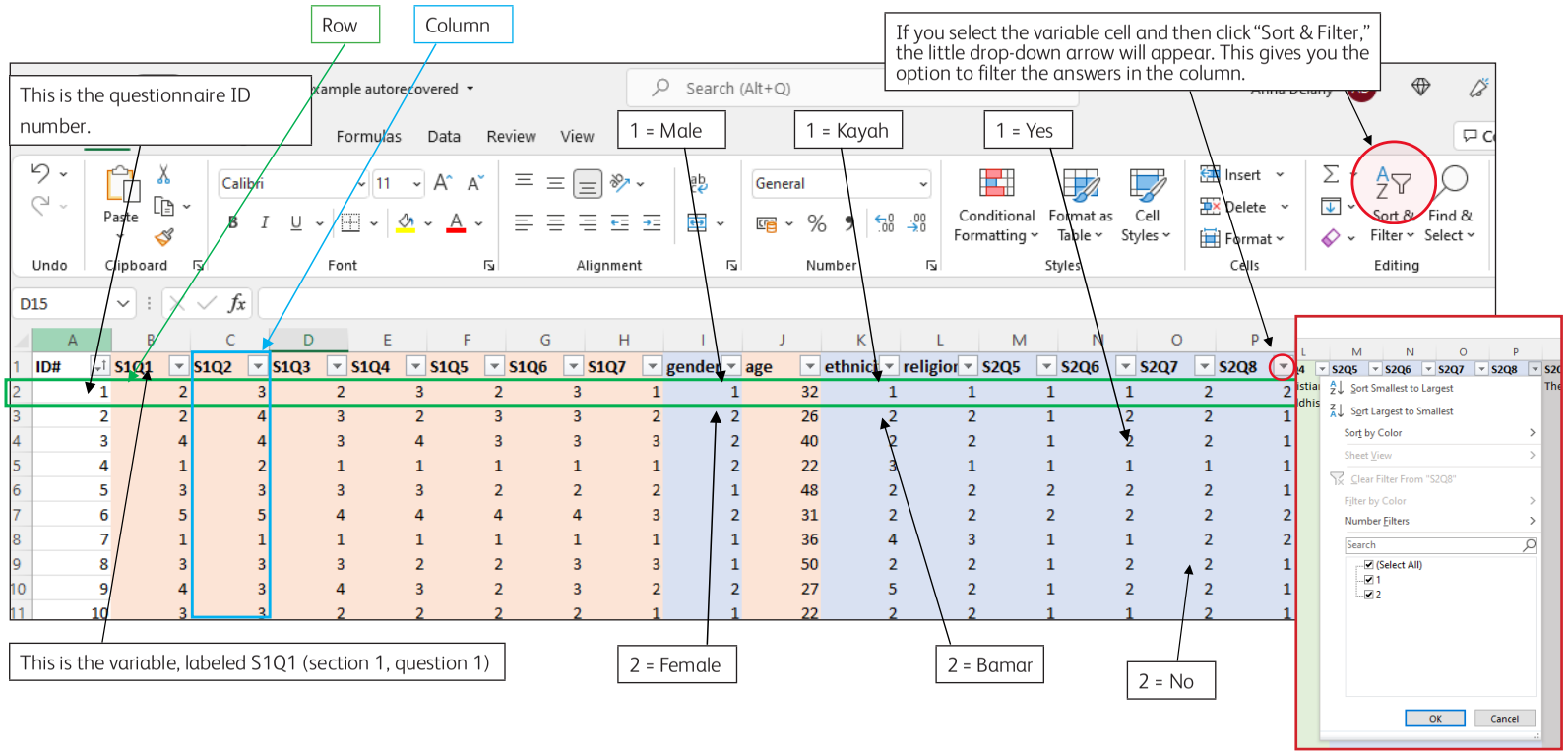
How you analyze your data will depend on the research question(s) you are trying to answer, and the types of variables you are analyzing. In quantitative research, **variables** simply refer to the "things" you are measuring, such as income or happiness. In the questionnaire above, you might be able to identify some of the variables measured: participants' trust in the police (in Section 1), their gender, age, ethnicity and religion, and also their past interaction with the police and their access to the police (in Section 2).

The main types of variables in social research are 1) interval variables, 2) ordinal variables and 3) nominal variables.

1. **Interval (or scale) variables**: These variables are the most straightforward to analyze because they are like a scale—the different values of such variables can be put in order or **ranked** (e.g., from smaller to bigger) and the "distance" (or interval) between these values is always the same. For example, if you are asking respondents' ages, you are measuring years, which means that it is possible to order your respondents from younger to older, and also, that the difference between 43 and 42 is the same as the difference between 16 and 17. Ages, numbers of people, and income are examples of interval variables.
2. **Ordinal variables**: These variables are similar to interval variables in a way that they are also like a scale—the values of such variables can still be ranked, but the difference between them is not always the same. A very common ordinal variable is level of education: you can still order the different levels from lower (e.g., primary) to higher (e.g., university), but the distance or difference between having a primary and secondary education and between having a secondary and university education is not the same. That is why such variables would be considered ordinal and not interval.
3. **Nominal (or categorical) variables**: These variables describe a name or category, and their values cannot be put in any order. In the questionnaire above, ethnicity and religion are nominal variables because we cannot say that Christianity comes before Buddhism or that Kayah ethnicity comes after Kachin ethnicity.

Entering the data in Microsoft Excel

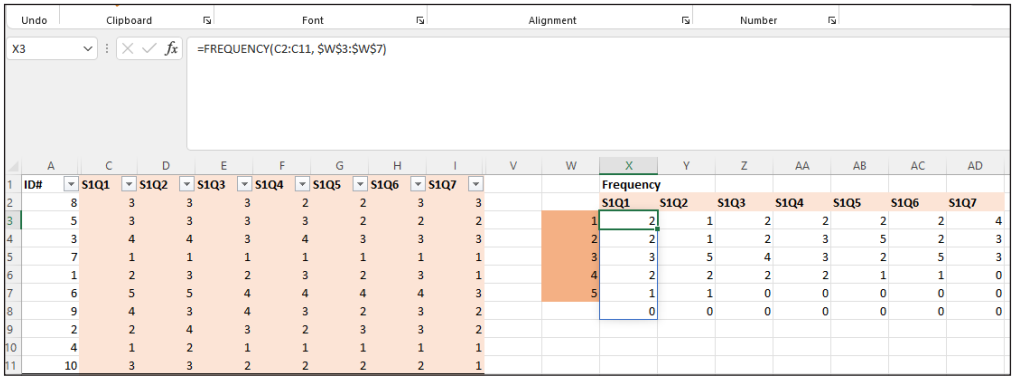
In the example below, data from 10 questionnaires have been entered into an Excel spreadsheet. To understand this spreadsheet, it is important to know that rows (cells/boxes going across horizontally) represent your participants and columns (cells/boxes going down vertically) represent your variables. In row 1, the names of your variables (or questions in this case) are signaled (e.g., "S1Q5" as in Section 1 Question 5, "gender," etc.) so that you know which variables the values/codes in each column refer to. At the same time, column A contains the questionnaire identification number so that you know which questionnaire (or participant) the answers (in each row) are from. The columns color coded in peach are all interval variables (1 = No trust at all; 5 = Full trust). The blue columns are nominal variables (e.g., Gender, Ethnicity, Religion).



Univariate data analysis

Univariate data analysis is when you analyze one variable at a time, and it is the simplest way to analyze data. It summarizes or describes the data and helps to identify patterns, but it does not examine relationships between two variables.

In univariate analysis, you can calculate the **frequency** of different answers to a question for any type of variable. For example, you can count how many people answered 1, 2, 3, 4, or 5 for each Section 1 question. Column X below shows how many times people answered "1" to the first question in Section 1:



ID#	S1Q1	S1Q2	S1Q3	S1Q4	S1Q5	S1Q6	S1Q7
8	3	3	3	2	2	3	3
5	3	3	3	3	2	2	2
3	4	4	3	4	3	3	3
7	1	1	1	1	1	1	1
1	2	3	2	3	2	3	1
6	5	5	4	4	4	4	3
9	4	3	4	3	2	3	2
2	2	4	3	2	3	3	2
4	1	2	1	1	1	1	1
10	3	3	2	2	2	2	1

	Frequency						
	S1Q1	S1Q2	S1Q3	S1Q4	S1Q5	S1Q6	S1Q7
1	2	1	2	2	2	2	4
2	2	1	2	3	5	2	3
3	3	5	4	3	2	5	3
4	2	2	2	2	1	1	0
5	1	1	0	0	0	0	0
	0	0	0	0	0	0	0

In the 10 questionnaires inputted, for S1Q1, the most frequent answer was 3 (the middle of the scale), while only one respondent answered 5 (Full trust). This gives you some information about how much your respondents trusted the police to treat people equally (since that is what the first question in Section 1 was asking).

To understand how useful frequency can be, imagine you want to know how household incomes in Dala Township, Yangon, have been affected by the pandemic. A simple calculation of frequency (how many answered "Yes" to "Has your household's income decreased since January 2020?") would give you a clear overview of the size of the problem. You can also convert the number (frequency) into a percentage, for example 496 households out of 560 in the sample answered "Yes" = 89%.

Excel formulae:

=FREQUENCY(data_array, bins_array)

=AVERAGE(number 1, number 2…)

Apart from frequency, it is very common to analyze variables for their **mean** (or average). For example, look at this data set of respondents' ages:

22, 22, 26, 27, 31, 32, 36, 40, 48, 50.

You can calculate the mean by adding up all the values (ages) and dividing by the number of values. In the example, it is 33.4. Means can be calculated for interval and ordinal variables.

Since the variable S1Q1 above is interval, you could also calculate its mean—it is 2.8. On a scale from 1 to 5, 2.8 is just above the middle (2.5), meaning that the respondents trusted the police only a little.

The **range** refers to the minimum and maximum values of an interval or ordinal variable. In the example above, the range of the age variable would be 22-50. The range tells you something about how much your variable is "spread out," and also, what its minimum and maximum values are.

A lot of this univariate analysis can be visualized using graphs, charts, and tables, which may make it easier for both you and your audience to understand. Try out different options in Excel or your data analysis program.

Bivariate data analysis

Bivariate data analysis is the analysis of two variables to explore the relationships between them. Before you start your bivariate data analysis, go back to your research question and remind yourself what it is you want to find out. In the first example in this chapter, the research question is "What is the level of public trust in the Myanmar Police Force and what are its influencing factors?". To analyze the influencing factors the researchers may want to know, for instance, whether gender is one of them. In other words, they may want to know whether there is a difference between how much women trust the police as compared to how much men trust the police.

Correlation *is not* causation

Bivariate analysis can show the relationships between two variables, but just because two variables are *correlated* does not mean that there is a causal relationship between them. For example, if you find that in your study people who spend more time on social media sites are also more unhappy, it doesn't have to mean that social media sites make them more unhappy—it could also be that because these people feel less happy in their daily lives, they turn to social media sites for entertainment.

There are lots of different ways to carry out bivariate data analysis. Below is an explanation of some common tools in small social research projects.

Contingency tables show the frequency of values across two variables at the same time and are used to look for patterns in these variables' relationship. For example, how many times male participants and female participants answered that they had no trust at all in the police to treat people equally. To analyze the relationship between gender and trusting the police to treat people equally (S1Q1), we can use a contingency table (see below). The table shows that among men, the most frequent answer to this question was the middle one (neither trusting nor distrusting the police), while none of the women answered in this way. Women's answers were more spread out and also more positive (they trusted the police more).

Keep in mind that it is easy to create such tables with a small amount of data (in this case, results from only 10 questionnaires), but you will need to use formulae to create such tables with a larger data set. If you are using Microsoft Excel, use the COUNTIFS formula to count the number of times each combination of the two variables' values appear, for example, how many times people answered both "male" and "1." Also note that contingency tables can be used only when at least one of the variables you want to analyze is nominal (in this case, that is gender).

Contingency table showing the relationship between gender and trusting the police to treat people equally

	Male		Female	
	No.	%	No.	%
1 - No trust at all	1	10%	1	10%
2	1	10%	1	10%
3	3	30%	0	0%
4	0	0%	2	20%
5 - Full trust	0	0%	1	10%

If you want to analyze the relationship between two interval variables, you should use **Pearson's *r* test** instead of a contingency table. This test can measure the precise strength of the **correlation** between the variables. The number produced through this test (the "*r*") will be either positive (with no sign before the actual number) or negative (with a minus before the actual number). If the number is positive, this shows that these two variables are *positively correlated*, which means that if one of them increases, the other one increases too (and the other way around). If the number is negative, the variables are *negatively correlated*, which means that if one of the variables increases, the other one decreases (and the other way around).

The *r* can only be a number between 0 (no correlation) and 1 (perfect correlation), meaning that the closer the number is to 1, the stronger the correlation (or relationship) between these two variables is. In Excel, use formula =CORREL and select the two ranges of *values, not codes*. In the example below, height (how tall the participants are) and weight (how much these participants weigh) are *strongly correlated* as the number is 0.95, which is close to 1. As it is +0.95 and not -0.95, it is a positive correlation, meaning that as height increases, so does weight.

C13 | =CORREL(B2:B11, C2:C11)

	A	B	C	D	E
1		Height (cm)	Weight (kg)		
2		160	57		
3		178	80		
4		158	55		
5		179	81		
6		164	59		
7		168	57		
8		174	79		
9		179	85		
10		180	90		
11		163	55		
12					
13		Pearson's *r*	0.950758582		

An example of a negative correlation could be that as tax increases, spending on clothes decreases (maybe because people have less extra money after paying tax).

Remember: you choose which statistical tests to use depending on what it is you are trying to find out. You should not do random calculations just because you can! You should also try to have an understanding of the purposes and principles of the different ways to analyze data, even if you know how to calculate them in Excel or another program.

Interpreting the findings

Once you have analyzed the data and identified your findings, you need to **interpret** them—figure out *what these findings mean*. Below are some examples of questions you can ask yourself.

- Do my findings answer my research question(s)? If so, how?
- What are my major findings, and what makes them important?
- Do any of my findings surprise me? Why/why not?
- What previous literature (if any) is relevant to my findings? Do my findings support or contradict the conclusions of past studies?

For example, if your research question is "How have household incomes been affected by the Covid-19 pandemic in Dala Township, Yangon?" the major findings that answer your research question would probably include:

1. how many households reported a change
2. the average (mean) change in household income
3. the perceived causes of the change
4. the difference between households reliant on day laborers and households with industry workers or office workers
5. the correlation between job security and affected income.

Then, crucially, you should think about which of the findings would be the most useful to apply—did the findings show that there could be a way to help these people, for example?

Activity 13.1.

Will the following questions result in interval (scale), ordinal, or nominal (categorical) variables? Write the correct variable type in the last column.

No.	Question	Answers	Variable type
1	What is your ethnicity?	_____	
2	What is your relationship status?	Single ○ Partnered ○ Married ○ Widowed ○ Divorced ○ Separated ○	
3	Do you identify as LGBTQIA+?	Yes ○ No ○ Prefer not to answer ○	
4	Which best describes your level of seniority at work?	Entry level ○ Junior ○ Mid-management ○ Senior management ○ Leadership ○	

No.	Question	Answers	Variable type
5	Have you ever accessed mental health services?	Yes ○ No ○ Prefer not to answer ○	
6	On average, how many hours of sleep do you get in a day?	_____	
7	Do you feel confident about your physical appearance?	Yes ○ No ○ Sometimes ○	

Activity 13.2.

Look at the data set in the table to the right.

1. Which types of variables are the two displayed in the table?

2. In Excel, calculate the means and ranges of the two variables.

3. Calculate Pearson's *r* for this data set.

4. Describe the correlation between the variables based on the value of *r*.

No.	Average income $	Years of education
1	30,000	6
2	45,000	9
3	80,000	14
4	60,000	12
5	70,000	13
6	70,000	13
7	55,000	9
8	55,000	10
9	80,000	13
10	50,000	9

Activity 13.3.

Imagine you are analyzing the relationship between primary school teachers' previous training experience and their opinions on using corporal punishment in primary schools. The survey questions were:

1. Have you ever attended child rights or child protection training?

Yes	No
○	○

2. Please express your agreement or disagreement with the following statement by circling one of the options on the scale:

Teachers should use corporal punishment to discipline primary school pupils.

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
1	2	3	4	5

The data, when entered into your data table/spreadsheet, are as follows:

No.	Attended training	(Dis)agreement
1	No	2
2	Yes	5
3	No	4
4	Yes	2
5	Yes	4
6	No	1
7	Yes	1
8	Yes	3
9	No	2
10	Yes	2

How will you analyze the relationship between the two variables in this case? And what does the analysis show you?

Your project

At this stage, if you have already collected your data, you can start entering the data into an Excel spreadsheet or statistics software. You should have already thought about what type of variables you are studying but take time to think about the best types of analysis to do. Focus on your research question, and remember to check which types of analysis can be done on which variables.

When you have analyzed your findings, you can test your understanding of the findings by trying to briefly explain them to a friend. If you find it difficult to talk about your findings in a simple way, you may need to work more on understanding them clearly.

Once you are confident that you understand the findings, work on the interpretation by focusing on the questions under *Interpreting the findings* above.

Further reading

Davies, C. (2020). *A quick guide to quantitative research in the social sciences.* University of Wales Trinity Saint David. https://repository.uwtsd.ac.uk/id/eprint/1540/

Löfgren, K. (2015, August 13). *How to create figures in Excel: Survey/questionnaire results/data | APA Style graphs*. [Video]. YouTube. https://www.youtube.com/watch?v=DjDaNnlYT3s

14 Presenting and Applying the Findings

By the end of this chapter, you should be able to:

- Create recommendations from your research findings.
- Present your findings in a clear and concise way.
- Create ideas and strategies for disseminating and applying your research findings.

- **Concise:** short and to the point
- **Recommend:** to suggest or advise that something be done
- **Plausible:** possible and realistic

As you already know from *Chapter 1: What is Research?,* applied research aims to come up with practical solutions to solve problems. For example, for the research question "What is the impact of water shortages on the community members in Tuivial Village, Tedim Township, Chin State?" the researcher wanted to understand the impact the water shortages were having on his or her community and, based on the research findings, to advocate for help from NGOs and local government. To do so, the researcher could set up meetings with key decision-makers and community members and present their findings as evidence that the situation is serious and that help is needed.

This chapter will help you to create recommendations, present your research, and put it into action.

Creating recommendations

Your recommendations should be fully related to your findings. Do not create unrelated recommendations based on your personal experience or aims of your organization—this would mean that your research was simply a waste of time (both yours and your participants') because you ended up not using the information you collected in deciding

Strong recommendations are "SMART":

Specific: What *exactly* are you recommending?
Measurable: Can the implementation of the recommendation be measured?
Achievable: Is the recommendation realistic, can it be done if there are resources and political will?
Relevant: Is the recommendation relevant to your findings and the issue being discussed?
Time-bound: Is there a deadline for this recommendation?

what should be done next. Irrelevant recommendations would also make your research look unprofessional and/or untrustworthy.

When drafting your recommendations, think about how your findings might be used in practice, policy, theory, and subsequent research. Your recommendations will be different depending on your audience and purpose, and you can also create different recommendations for different stakeholders such as community members, local NGOs or CBOs, local government, and so on.

For example, for the research question "How have girls and young women in Northern Shan State been impacted by the Covid-19 pandemic?" recommendations could include:

- Social media and technology companies should update monitoring and reporting systems to reduce gender-based violence online within the next six months.
- The Ministry of Education should plan for a safe return to in-person classes for all students as soon as possible, with guidance from public health authorities.
- The Ministry of Health and NGOs should increase mental health services for girls and young women by at least 5 %, especially in underserved areas, by the end of the year.
- Religious leaders and groups should create self-help groups for girls and young women to support each other in-person, when safe to do so, and online or via phone while it is unsafe.

It is also often a good idea to clearly show which recommendations are most important. To decide which ones to highlight, try to identify the recommendations that are the most plausible (politically, financially), what their impacts could be, who you are presenting them to, and what timeframe you are planning for.

Presenting findings and recommendations

By this point, you should have identified your audience(s) and have thought about who should know about your findings. How you present your research will change depending on your audience. Are you presenting to your community members? Peers? Local authorities? Teachers?

You can "present" your findings and recommendations in many different formats. Oral presentations and written reports are most common, but people also create flyers/leaflets, infographics to share on social media, and even videos. Get creative! Just always keep in mind the best way to reach your target audience.

General tips for presenting your findings and recommendations:

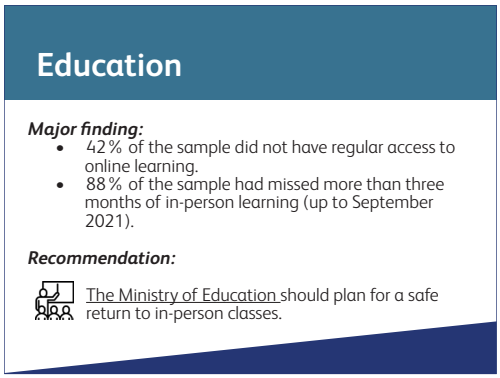
- Use plain language that is easily understood.
- Ask someone to read your text or presentation to check that it is clear.
- Use a combination of text and visual information, if possible.
- Be concise.
- Organize your points logically (e.g., by topic, or by order of importance).
- Include references and data.
- Start and finish strong, concluding with a summary of the most important points.

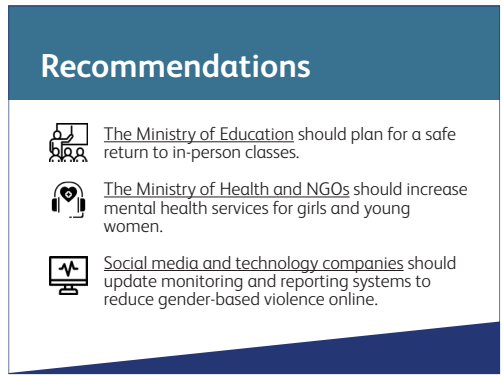
For oral presentations, make sure you plan, practice, and prepare for potential questions; do not expect that you will simply stick to your points, because if your presentation is interesting and relevant to the audience, they will probably want to engage further.

Dos and Don'ts
for oral presentations

Plan and outline your main points logically (e.g., by topic or importance).	Just start writing/creating slides without any plan or notes.
Prepare a strong introduction and strong conclusion.	Finish by saying "so that's it," or something weak like that.
Be concise.	Try to fit every detail into a short presentation.
Allow time for questions.	Rush yourself and others.
Keep fonts on slides plain and uniform (size, color).	Crowd the slides with unnecessary icons, colors, or use small fonts that people cannot read.
Practice on your own and with friends.	Forget to time your presentation!
Prepare and arrive early to set up the room/area.	Arrive late, stressed, and unprepared!
Use a slide deck or notes to draw attention to your main points.	Read directly from the slides or notes.
Show your passion for your topic.	Speak in a monotone voice and appear bored.
Speak slowly and clearly.	Speak too fast.
Maintain eye contact with the audience and engage them.	Look only at your notes or slides.
Include next steps for you and the audience.	Leave without thanking the audience.

Below are examples of slides organized in two different ways: one by topic, with recommendations following the related findings, and one with recommendations at the end of the presentation.





Notice how only the main points are included on the slides. However, to complement the written information, the presenter should also orally mention the timeframe for the recommendations, the context of the findings, and so on.

Presenting your findings and recommendations well can encourage your audience to implement the recommendations, especially if you clearly suggest next steps. In the same way, a bad presentation can make your research look unprofessional and untrustworthy—so be sure to prepare well and practice plenty.

Disseminating the findings and recommendations

If you want your research to be used beyond your personal work or organization, you need to find ways for it to reach your target audiences.

There are many different ways you could do this, including:

- Sharing it on social media or relevant websites
- Sharing it with interested organizations
- Asking if your report can be added to certain libraries or databases
- Organizing a panel discussion or other form of presentation on the topic
- Sending out a press release
- Sharing it with key contacts via email or other means
- Asking key stakeholders to share it with their network
- Identifying if there are any related newsletters that your work could be included in
- Submitting your paper to a related journal or conference.

It is good practice to share your findings and completed report with your participants and anyone who helped you in the research process. Be sure to thank them and acknowledge their contributions.

The method you choose depends on your objectives, resources, and also on the quality of your work—you may not be confident enough in the quality of your research to submit it to an academic journal, for example.

Applying the findings

In many cases, you, the researcher, may be the one applying the findings. In this case, the impact of the research project is in your hands! For instance, imagine you researched student satisfaction in your community school. After completing the research, you could take your findings to your team and learn from them: Are students satisfied? What do they suggest? Are these suggestions practical? You can apply your findings and even create recommendations in cooperation with both the faculty and students, and then make an action plan with a timeline for implementing them.

In some cases, applying the findings may mean doing further research on the topic. Maybe you identified another research problem from analyzing your data and interpreting your findings.

No matter what, any well-conducted applied research at the community level can be highly beneficial. This is true not only with regard to problem solving, but also for engaging the community, creating a cooperative environment, encouraging critical thinking and evidence-based decision making, and learning for yourself. It will all be worth it!

Do you know any examples of when research was applied in Myanmar? If so, try to find out what the process was; how did they apply the findings?

Activity 14.1.

Imagine you carried out a research project titled "Access to mental health care among Karen peoples in Myanmar," and the objectives were to find out the levels of access to mental health care among Karen peoples and identify steps that could be taken to improve access.

How would you plan to disseminate your report and apply the findings?

Your project

Create an action plan for dissemination and/or application of your findings and recommendations. What will you do when, using which resources?

You can use this table as a template:

	Action steps	By whom	By when	Resources available	Resources needed	Communi-cation
	What needs to be done?	Who will do it?	What is the deadline for this step?	What resources do you already have?	What resources do you need?	Who do you need to contact/ inform about this?
1						
2						
3						
4						
5						
6						

Answer Keys

Activity 1.1.

- Formal research is an organized systematic process of finding new knowledge to answer a specific question.
- *There are many possible answers; the following are just three possible suggestions:* 1) Researching the reasons people migrate by interviewing migrants in an organized way and analyzing what they tell you, 2) Researching the cost of eating healthily by collecting and analyzing data on the prices of different food items, 3) Researching the impacts of deforestation on communities in a certain area by interviewing or discussing with the communities there.
- *All of the above examples could be applied research if the new information is used to solve problems in a practical way. For example, research on the cost of eating healthily could be used to help NGOs decide how to educate communities to eat a healthy diet that is also affordable.*

Activity 1.2.

Answers will vary.

Activity 1.3.

The volunteers should have researched the interest and needs of the children in the camp. If they had done some research before starting the classes, they could have found out information such as the number of children and teenagers interested, why they are interested (what are their reasons for wanting to learn English), their level of English, what time would be suitable, and so on. This information would have helped them to design useful classes for their target group.

This scenario shows the benefit of doing research in everyday life.

Activity 2.1.

3. Literature review. I read books, articles and news about water usage and discussed my project with colleagues and other people I knew had done research before. I wrote down important information I found in the literature and kept note of what I read (title, author, year, and publisher).

7. Data collection. Because I was carrying out the research in my own community, it was quite easy to get participants, and luckily, I had enough time, so I went from house to house asking the adults of each household to participate in a focus group discussion three days later. Most agreed, but some were not available, so I ended up interviewing six groups of six to eight villagers per group. I recorded the interviews (with the participants' consent) and took written notes with the help of a research assistant.

1. Explore area of interest. I was interested in environmental issues, so I read some literature and news articles, brainstormed with colleagues, and observed what was happening in my community.

5. Sampling strategy. Next, I had to decide who the participants should be, and how I would find them. I decided they had to 1) live in Tuivial Village and 2) be over 18 years of age.

2. Research problem and research question. I realized that the main environmental issue in my community was lack of water. I wanted to know the impacts of this issue on the community. My research question became "What are the impacts of water shortages on the community members in Tuivial Village, Tedim Township, Chin State?"

10. Application. I did this research project to understand the impacts the water shortage was having on my community and to use it to advocate for help from NGOs and local government. Soon I will set up meetings with key decision-makers and bring my research report as evidence that the situation is serious and that we need support.

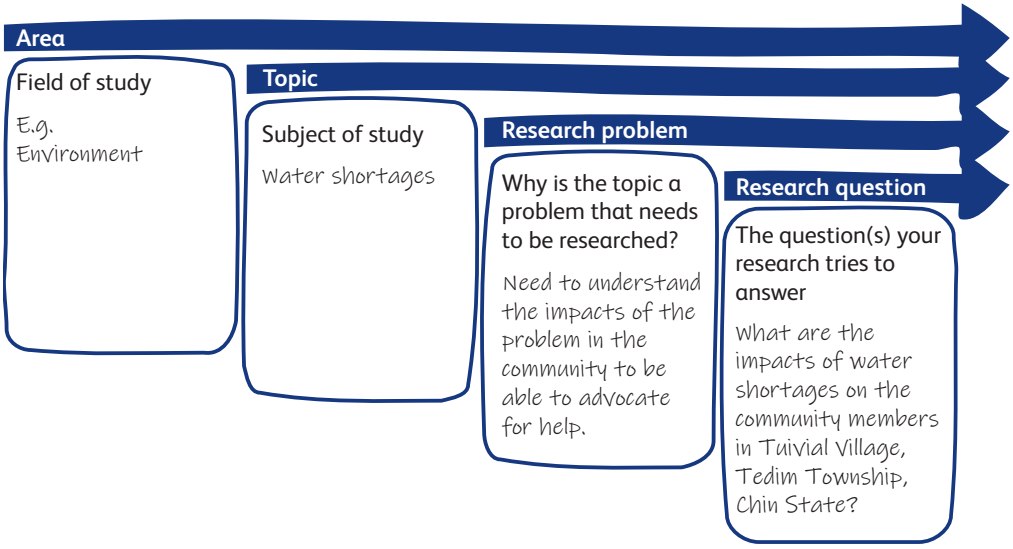
4. Research method. I then had to plan what methodology and methods I should use. From reading other research reports about water shortages and considering my research question, I decided to do a qualitative study using focus group discussions, which would be both useful and timesaving.

6. Interview guide and pilot study. Then I created an interview guide with open-ended questions so that the participants could add more information about their opinions and experience if they wanted. My colleagues and friends helped me to edit the questions and then I did a pilot study with three community members.

9. Report and dissemination. Then, I wrote a report with the results (findings) of my study. I shared the report with the participants and relevant organizations, professionals, and activists.

8. Data analysis. After collecting the data from the 40 community research participants, I did the analysis. I spent a lot of time listening to the recordings and writing down everything that the participants said. I read the data carefully many times, and then found the common themes discussed by the participants.

Activity 3.1.



Activity 3.2.

The following are possible/suggested answers. Other answers are also possible.

1. What are the opinions of farmers in Northern Shan State on the use of chemical fertilizers?

2. How do religious leaders in Bago Region influence community members' political opinions?

3. Does household income affect high school students' preferred university majors? If so, how?

Activity 4.1.

1. www.factsanddetails.com is not a reliable website. In the "About This Project" section, the website owner explains that he is not an expert, and he creates the articles using various sources without citing (referencing) them. For example, see "Kachin Ethnic Group" - there is no way we as the readers can tell the original source of the stated facts (e.g., that the population of Myitkyina is approximately 150,000).

2. www.droughtmanagement.info is a reliable website. The reports on the drought management library all have the name of the organization, author, or publisher. They also have a publication date and contain references. Additionally, most of the reports are from trustworthy institutions, such as the World Bank, and the UN Food and Agriculture Organization (FAO).

Activity 5.1.

~~to describe and understand~~ / ~~bigger~~ / ~~numbers~~ / ~~subjectivity~~ / ~~what things mean~~ / ~~smaller~~ / ~~how much there is of something~~ / ~~words~~ / ~~width~~ / ~~to explain and generalize~~

	Qualitative methodology	Quantitative methodology
Its goal is…	to describe and understand	to explain and generalize
It focuses on…	depth	width
It studies…	what things mean	how much there is of something
It values…	subjectivity	objectivity
The data are…	words	numbers
The samples are…	smaller	bigger

Activity 5.2.

The Impact of COVID-19 on Small and Medium-sized Enterprises: Evidence from Two-wave Phone Surveys in China is a **quantitative study** since the researchers wanted to find out **how long** (how much time) businesses expect to take to recover, **how many** employees were affected, and **how much** their revenue and costs were affected. The data would be collected in numbers (e.g., months, years, number of employees). You can read the questionnaire they used here.[15]

In-service Teachers' Training: The Case of University Teachers in Yangon, Myanmar is a **qualitative study** since it **explores the views** of eight university lecturers (a small sample size). Another clue is that **interviews** were used, which are a qualitative method.

15 ESIEC2020 Questionnaire on the Resilience of Micro, Small and Medium Enterprises under the New Coronavirus Outbreak (Covid-19) https://www.cgdev.org/sites/default/files/coronavirus-SME-survey-instrument-english.pdf

Activity 5.3.

Answers will vary.

Activity 6.1.

Method	What is it?	Quantitative and/or qualitative?	Strengths	Weaknesses
Interview	Questions to an individual participant. Can be structured, semi-structured or unstructured.	Qualitative	- Useful for exploring opinions, experiences, feelings - Direct interaction (good for clarification or follow up)	- The interviewer's perceived identity can influence the participant's answers - Takes time/ difficult to schedule
Focus group	Open discussion in a group (usually 5-8), guided by the researcher (facilitator)	Qualitative	- Some participants might be more comfortable in a group - Can observe the dynamic between participants - More time-efficient than an interview	- Participants might not answer completely truthfully/openly - Good facilitation skills necessary - The facilitator's perceived identity can influence the participants' answers
Questionnaire	Questions ready for participants to answer, usually without the help of the researcher (either online or on paper)	Quantitative	- Good for large numbers of participants If not done with help of researcher: - Good for collecting data from different places - Quick/efficient data collection	- Researcher does not usually meet the participants so cannot explain or get additional information if needed - Difficult to study topic in depth

Activity 6.2.

"This study used **qualitative methodology**, specifically, **face-to-face in-depth interviews**. The interviews were semi-structured, because this way, researchers could **follow up** by asking more detailed questions to get relevant information about specific topics. Moreover, by employing open-ended questions, participants were **free to express their opinions in their own words**. In addition, it was judged as very important for the **researchers' and participants' relationship** to have the opportunity to respond immediately and freely" (Anonymous, 2019, p. 4).

Activity 7.1.

In the qualitative research project, the researcher mainly used open-ended questions (e.g., "What are the advantages and disadvantages of these reforms?"), but he or she asked some close-ended questions too"(e.g., "Has your land been confiscated before?" and "How many acres have been confiscated? When?").

In the quantitative study, the researchers mainly used close-ended questions (e.g., "Have you ever been arrested?"), but the final question is open-ended ("If No, can you please provide the reason for why it is not easy?").

Activity 7.2.

Open-ended questions	
Advantages	**Disadvantages**
Participants can answer in their own words	Can be harder to analyze the data
Can produce rich and valuable data	Participants might offer a lot of irrelevant information
Can be better for discussing sensitive information	Take more time for participants to answer
Close-ended questions	
Advantages	**Disadvantages**
Data can be easier to analyze	You might create biased answering options influenced by your experience and knowledge
The collected information will definitely be relevant	Participants' answers are limited
Can be answered more quickly	Participants might not give enough thought to their answers

Activity 7.3.

Interview questions		
Draft 1	**Draft 2**	**Possible reason(s) for change**
What do you think about diversity in the workplace?	What do you think about ethnic diversity in the workplace?	Not specific enough - participants might talk about different types of diversity (e.g., age, gender, class)
As a Kayah person, do you feel you are being treated equally by the national government?	As a person from Kayah State, do you feel you are being treated equally by the national government?	Not all people from Kayah State are Kayah or identify as Kayah – they could be Burmese, Shan, etc.
Do you feel discriminated against by teachers at the school?	Do you feel discriminated against? If yes, by whom?	It is better not to assume who might be discriminating against the participants.
What difficulties have you faced as a female engineer?	What is it like being a female engineer when most of your colleagues are men?	The first draft assumes that the woman had difficulties. The second draft allows her to express her opinion and experiences, whether positive or negative.
Do you think, given the current economy, that many men and young women will try to move abroad to Singapore or Malaysia to try to find a job and a better life and send money home?	Do you think there will be any migration because of the state of the economy?	The first draft is too complicated and contains too many details (if the researcher wants to know more specifics, they can ask follow-up questions).

Activity 7.4.

Draft 1	Draft 2	Possible reason(s) for change
Do you have any previous work experience in research and advocacy? a. Yes b. No	Do you have any previous paid work experience in research? a. Yes b. No Do you have any previous paid work experience in advocacy? a. Yes b. No	Two questions in one (the participant might have research experience but no advocacy experience). Not specific enough – added "paid".

Draft 1	Draft 2	Possible reason(s) for change
According to recent data, 80% of the people support independence. Do you agree? a. Agree b. Disagree	Do you support the independence movement? a. Yes b. No	Leading question – the participant might decide how to answer based on the statement that 80% support independence.
What MHPSS services would you like to see being provided by INGOs in your state?	What mental health and psychosocial support services would you like organizations to provide? Select all that apply. ☐ Talk therapy ☐ Medication ☐ Women's self-help groups ☐ Men's self-help groups ☐ Storytelling groups ☐ Youth groups ☐ Other: _____	Acronyms/abbreviations should not be used. Options are added because participants might not know what the possibilities are.
What is your ethnicity? ☐ Bamar ☐ Shan ☐ Kachin ☐ Chin ☐ Rakhine ☐ Mon ☐ Karen ☐ Karenni	What is your ethnicity? _____	There are many ethnicities in Myanmar, and many sub-groups or tribes may not identify with the ones listed. It is better to allow participants to state their own identity, that is, to make the question open-ended rather than close-ended.
Membership of the Association of Southeast Asian Nations (ASEAN) is good for Myanmar. a. Agree b. Disagree	Membership of the Association of Southeast Asian Nations (ASEAN) is good for Myanmar. Strongly agree (1) / Agree (2) / Neither agree nor disagree (3) / Disagree (4) / Strongly disagree (5)	Participants might not feel strongly either in favor or against membership of ASEAN (so they might skip the question or answer inaccurately). To solve this, more options were added on a scale from 1 to 5.

Activity 9.1

1. Over 18 (the age of majority in Swaziland).
2. Say that they have been diagnosed HIV positive (NOTE: "reported that they had been previously diagnosed with HIV" suggests that they were not asked to prove that they are HIV positive).
3. Have sold sex (now or in the past).

> women also work in bars. **Our inclusion criteria required that informants were over the age of 18 (the legal age of majority in Swaziland), reported that they had been previously diagnosed with HIV, and sold sex.** Other research involved [32-34]. To account for this, our criterion for sex work was self-identification as a sex worker. **Although we had no exclusion criteria based on the last time a woman had sold sex, most participants were actively engaged in sex work at the time of data collection.** Participants were

First, participants were recruited through networking with support groups and peer education networks for women living with HIV. This could be considered a purposive sampling strategy since the researchers intentionally looked for a particular kind of participant that would be best for their study. After some participants were selected purposively, more were recruited using snowball sampling. Both of these strategies fall under non-probability sampling.

1. Reached out to support groups and peer education networks and asked NGO staff or public health nurses to refer women living with HIV to the people working on the study.
2. If the women were interested, they were invited by the staff member or nurse to meet the people working on the study for an interview.
3. More participants were found through the participants referred by the NGO staff or nurses.

> sex work at the time of data collection. **Participants were recruited through support groups and peer education networks run by government public health clinics and local NGOs. NGO staff and public health nurses who worked closely with these groups were asked to refer women who were living with HIV to the study staff. If potential participants expressed interest, they were invited by the referring NGO staff member or nurse to meet the study staff at a pre-arranged interview location. Further participants were then recruited using snowball sampling methods [35].**

Activity 10.1.

1. The interviewer starts with some informal chat, and then thanks the participant for her participation. She explains the reasons and goals of the interview. She mentions the length of time the interview might take. She increases participant's confidence by stating that there are no wrong answers, and states that everything will be confidential.
2. The interviewer asks if she can record the interview and explains that she will be the only one to listen to the recording and explains why it is useful.
3. The interviewer takes some brief notes, but the participant doesn't seem distracted.
4. The interviewer summarizes and checks the information given by the participant and asks questions to clarify (e.g., "You use what?" "Does that mean…?") and asks follow-up questions (e.g., "How do you deal with that?"). The interviewer has good body language and seems interested in what the participant has to say: she makes eye contact, smiles plenty, and expresses agreement by nodding.

Activity 10.2.

1. *Answers will vary*.

2. Case study

The following are possible/suggested answers. Other answers are also possible.

1. The researcher could recruit a woman to interview the women, preferably a Muslim woman or a trusted member of the community.
2. The researcher could try to gain the community's trust by having an influential member of the Muslim community say that he is trustworthy and introduce him to the potential participants.
3. Instead of interviews, the researcher could organize focus group discussions: one with men and one with women. Alternatively, the researcher could consider interviewing the men and their wives at the same time, but then he would have to make sure that both men and women get to talk during the interviews.
4. The researcher could demonstrate how the study could benefit the community (if it is true).

Activity 11.1.

Scenario 1

You have two choices:

1. Respect the participant's right to withdraw consent at any time and delete the recording.
2. Propose to the participant that you will keep the recording but promise not to include anything he has said in the transcript and that you will delete the recording after it has been transcribed. This way, there will be no trace of the participant's participation in the research project.

You must remember that the participant has the right to withdraw consent at any time, including consent to being recorded, consent to being quoted in the report, or anything else they may have agreed to. The participant does not have to give you a reason or argue why they want to withdraw their consent—it is simply their right and it needs to be respected.

Scenario 2

You can assure the participant that you did keep the information confidential, as promised, and you have not named them anywhere.

It is possible that someone has guessed the participant by what they said in the paper and how they were referred to. For example, if there are very few "experts in community forestry in Tanintharyi Region" in the country, it may be easy for a reader to guess who the participant is. This is why it is important that you think through how much detail you will include when describing your participants in the report. You also need to make sure that the participants know all the risks and agree to the way you will refer to them in the report.

Activity 11.2.

The following are possible/suggested answers. Other answers are also possible.

A: Risks to the researchers				
No.	**Question**	**Yes/ No**	**Probability of risk (low, medium, high)**	**Action to be taken**
A1	Will you be collecting data in an area you are not familiar with?	Yes	High	Talk to a local contact and arrange an introduction to the area.

No.	Question	Yes/ No	Probability of risk (low, medium, high)	Action to be taken
A2	Will you be collecting data in an unstable area?	Yes	Medium - Although there is no active fighting in Hpakant, there are often clashes nearby and the area was under KIA control before.	Keep informed of fighting in the region and avoid areas that could be riskier.
A3	Will you be collecting data on a politically sensitive topic?	Yes	High	Keep a low profile and meet participants in private spaces. Maintain confidentiality at all times.
A4	Will you be collecting data on a culturally taboo topic?	Yes	Medium - There is a lot of drug use and crime in the area, so the participants may discuss this.	Keep a low profile and meet participants in private spaces. Maintain confidentiality at all times.
A5	Will you be collecting data alone or staying in the data collection area alone?	No		
A6	Will your travel involve risks (roadblocks, poor road conditions, health care, security)?	Yes	Medium – If there are clashes along the way.	Keep informed of fighting in the region and avoid areas that could be riskier.
A7	Are there any other risks that you could face?	Yes	Medium – Because of illegal activities, conflict between companies, the military and the KIA, actors in the area could be suspicious of outsiders.	Keep a low profile and meet participants in private spaces. Maintain confidentiality at all times.
B: Risks to participants				
No.	**Question**	**Yes/ No**	**Probability of risk (low, medium, high)**	**Action to be taken**
B1	Will your participants be children (under 18) or not be fully able to give informed consent?	No		
B2	Will you provide a full explanation of the research before they agree to participate?	Yes		Provide oral and written explanation in the local language.

No.	Question	Yes/ No	Probability of risk (low, medium, high)	Action to be taken
B3	Will participants remain anonymous?	Yes		Will not use real names in reports, transcripts, or recordings.
B4	Will your data collection include sensitive topics, such as violence, physical or psychological disorders, drug or alcohol use, criminal behavior, or sexuality?	Yes	Medium	Keep a low profile and meet participants in private spaces. Maintain confidentiality at all times.
B5	Will your data collection possibly include information regarding participants' involvement in illegal activities?	Yes	High – "Freelance" mining is illegal, as is a big part of the mining industry in the area.	Participants will be anonymous, and interviews will take place in a private place.
B6	Will your data collection possibly include participants discussing or thinking about bad memories?	Yes	High – Dangerous work, people often die in landslides.	Approach with sensitivity; share information about organizations that may help with mental health.
B7	Will your data collection possibly include criticism of governments or other institutions?	Yes	High – Most of the mining companies have links to various kinds of armed and non-armed institutions.	Keep a low profile and meet participants in private spaces. Maintain confidentiality at all times.
B8	Will your data collection possibly lead to conflict between participants?	No		
B9	Will data be kept confidential?	Yes		Will not use real names in reports, transcripts, or recordings.
B10	Will data be securely stored?	Yes		Data will be stored on a secure storage cloud.
B11	Will your participants face any other risks in their daily life or work due to their participation in your research project?	Yes	Low – If there is criticism of certain institutions, it could be risky.	Keep a low profile and meet participants in private spaces. Maintain confidentiality at all times.

Activity 12.1.

Answers will vary.

Activity 12.2.

The following are possible/suggested codes. Other codes are also possible.

Interviewer: How does a normal day in your life look like from the moment you get up until the moment you get back to bed?	
Justine: To start with, my name is Justine and I sell fruits on a daily basis, so I wake up at five in the morning, I pray of course, and I dress up, I go to the market to purchase what I sell, but that all depends on how much I have. Sometimes I buy things that are less than what I want because I don't have the money to buy everything that I want. Emm… I don't always take breakfast because I cannot manage that with my 10 children.	Fruit seller Pray Buy-to-sell Sometimes doesn't have breakfast Many children
Interviewer: You have 10 children?	
Justine: Yes. 10 children.	
Interviewer: So, if I understand you correctly you go to the market in the morning to purchase the fruits that you're selling and breakfast for your 10 children. And you're saying you don't always manage to buy everything you want to buy.	
Justine: Exactly.	
Interviewer: How come you can't buy everything?	
Justine: I am a single mother. Bringing up 10 children by myself is not easy. Sometimes I end up using the profit I have to take care of my children than to sustain my business.	Single mother Business survives day-to-day
Interviewer: You use what?	
Justine: I use the money that I would use to sustain my business to take care of my children.	
Interviewer: Oh, does that mean that you then are not able to buy the fruits to then sell and then generate new income?	
Justine: Yeah.	
Interviewer: Okay. How do you deal with that? How do you do it then the next day?	

Justine: Ah it's pretty hard, but then I believe in God, I mean I pray every day, so my day comes, I take it the way it comes… then I use what I have. At least I sell the products that I have. When I get money that I get the money to buy for my kids to eat and then use the small money to go back the next day to the market and buy anything.	Pray to cope Kids priority
Interviewer: Okay, and that's how you manage to get some new fruit to sell again. Okay. Can you explain me a little bit more about being a single mom?	Teenage pregnancy
Justine: Em… I'm 35… years old, I gave birth to my first child with 15 years.	Multiple relationships
Interviewer: 15 years?	
Justine: Yes. So now, I have 10 children, but not from the same dad. My children were born to five daddies.	
Interviewer: Really?	
Justine: Yes.	
Interviewer: So you gave birth when you were only 15 years old. Can you explain how that was for you? To give birth at that age?	Poor environment Drug abuse among youth Relationships from young
Justine: I've grown up in a place that is too congested, so many people. And they have different behaviors. The youth in my village take… they abuse drugs. They take marijuana, they take miraa… you know?	
Interviewer: (clarifying) They take your…?	
Justine: Miraa… some drug. So as a young girl I couldn't go to school, my parents did not have the money to take me to school. So I saw myself starting with this relationship at a very young age.	Not educated
[end of excerpt]	

Activity 12.3.

The "Findings" section *describes* the findings and gives evidence in the form of quotes to show how the findings were identified. The "Discussion" section presents *what the findings mean* or the researchers' *interpretation* of the findings. The "Discussion" section compares the findings with previous literature, makes recommendations for further research, and also mentions why the findings are important.

Activity 13.1.

No.	Question	Answers	Variable type
1	What is your ethnicity?	_____	Nominal
2	What is your relationship status?	Single ○ Partnered ○ Married ○ Widowed ○ Divorced ○ Separated ○	Nominal
3	Do you identify as LGBTQIA+?	Yes ○ No ○ Prefer not to answer ○	Nominal
4	Which best describes your level of seniority at work?	Entry level ○ Junior ○ Mid-management ○ Senior management ○ Leadership ○	Ordinal
5	Have you ever accessed mental health services?	Yes ○ No ○ Prefer not to answer ○	Nominal
6	On average, how many hours of sleep do you get in a day?	_____	Interval
7	Do you feel confident about your physical appearance?	Yes ○ No ○ Sometimes ○	Nominal

Activity 13.2.

1. Both are interval types.
2. Mean (income): $59,500

   Mean (years of education): 10.8
   Range (income): $30,000 - $80,000
   Range (education): 6–14.
3. Pearson's *r* = 0.96
4. There appears to be quite a strong, positive correlation between years of education and average annual income; the *r* is close to 1 and is positive (no minus sign). This means that the more educated these participants are (at least in terms of years), the more they earn.

	A	B	C	D
1		Average income $	Years of edu	
2		30,000	6	
3		45,000	9	
4		80,000	14	
5		60,000	12	
6		70,000	13	
7		70,000	13	
8		55,000	9	
9		55,000	10	
10		80,000	13	
11		50,000	9	
12				
13	**MEAN**	59,500	10.8	
14	**MIN**	30,000	6	
15	**MAX**	80,000	14	
16	**r**			0.961896

Activity 13.3.

1. Calculate the frequencies how many respondents have attended child rights or child protection training: Yes = 6 (60%), No = 4 (40%)
2. Calculate the frequencies of the Likert scale showing agreement or disagreement:

	No.	%
1 – Strongly agree	2	20%
2 – Agree	4	40%
3 – Neither agree or disagree	1	10%
4 – Disagree	2	20%
5 – Strongly disagree	1	10%

3. Create a contingency table to display the relationship between having attended training and how much they agree/disagree that corporal punishment should be used as a form of discipline. The contingency table shows that fewer teachers who have attended training agree that corporal punishment should be used as a form of discipline.

Contingency table showing the relationship between having attended training and level of agreement or disagreement that corporal punishment should be used as a form of discipline in schools

	Have attended training		Have not attended training	
	No.	%	No.	%
1 – Strongly disagree	1	10%	1	10%
2 – Disagree	2	20%	2	20%
3 – Neither agree or disagree	1	10%	0	0%
4 – Agree	1	10%	1	10%
5 – Strongly agree	1	10%	0	0%

Activity 14.1.

The following are possible/suggested answers. Other answers are also possible.

You could write a briefing paper (around two pages in length) and share your main findings and recommendations with interested stakeholders, such as Karen Human Rights Group, mental health or public health organizations, and local authorities. You could request meetings and present your findings to mental health service providers, sharing recommendations that are specifically for them.

You could write a short news article or discussion and submit it to newspapers or websites or share it on social media.

Depending on the findings, you could also work on developing a mental health project or do more research.

Glossary

Academic literature	Literature published as books or in peer-reviewed journals
Analyze	Look at the details of something to try to understand it
Anonymous	Unknown or not known by name
Applied research	Research that wants to use the results in a practical way
Area of study	A broad field of knowledge
Basic research	Research that is done *just* to know more
Bias	Preferring one person or thing to another, and to favor that person or thing
Bibliography	A list of books and sources
Causation	A causal connection between variables, meaning a change in the first variable leads to a change in the second variable, but not the other way around
Close-ended questions	Questions that limit the possible answers
Code (in quantitative analysis)	Label data that is in the form of words as numbers (e.g., Male = 1 and Female = 2)
Coding (in qualitative analysis)	Creating keywords for sections of data
Coincidence	When two or more things happen at the same time without any reason
Concise	Short and to the point
Confidential	Kept secret
Consent	Permission/agreement; to agree to do something
Controversial (topic)	Causing a lot of disagreement

Correlation	A connection or relationship between two variables where both variables influence each other
Criticism	Sharing (negative) opinions of something
Desk research	Finding, compiling, summarizing, and analyzing data (information) that already exists (also known as secondary research)
Disseminate	To share, spread, or distribute
Ethical	Morally good, right, correct
Ethics	Ideas about what behavior is right or wrong
Evidence	The available information or facts that shows if a belief is true or valid
Findings	What you "found" from your research; the results
Hypothesis	An idea for a theory that has not been proven yet
Informed	Having knowledge and understanding
Informed consent	Agreeing to do something with full understanding of what you are agreeing to
Interpret	Explain the meaning of something according to your own understanding
Investigate	To try to find evidence and facts; to study
Literature	Information on a particular subject, including books and articles, documentaries, etc.
Literature review	A process that involves reading, summarizing, and analyzing literature in your chosen area of study and research topic
Methodology	Approaches used when you are going to gather data
Methods	Tools used to gather data, e.g., focus group discussions
Objective	"Based on real facts and not influenced by personal beliefs or feelings" (Cambridge Dictionary)
Open-ended questions	Questions that allow participants to answer in their own words

Pattern (in data analysis)	A kind of structure or organization of data that becomes clear when some of it is repeated often enough and/or in predictable ways
Pilot study	A small practice version of your study used to test if your method is easy for participants to understand before doing the main study
Plagiarism	Using someone else's words or ideas without giving credit
Population	The people you are interested in studying (e.g., primary teachers in rural Rakhine)
Primary data	New, original data that is collected directly by you, the researcher
Primary research	Research when new, original data is collected directly by the researcher
Qualitative methodology	An approach we use when we are interested in knowing the "quality" of situations, things, or ideas (what they are and what they mean)
Quantitative methodology	An approach we use when we are interested in knowing the "quantity" of something (how many or how much)
Ranked	Listed in order of importance or size
Raw data	The data (e.g., interview or questionnaire answers) that have not been edited in any way
Recommend	To suggest or advise someone to do something
Reference list	A list of sources that were used by the author of the text
Reference/cite	To mention or refer to a source
Reliable	Can be trusted
Representative sample	A sample that represents (or reflects) the characteristics of the whole research population
Research problem	An explanation of why your research is needed, or why the research topic needs attention
Research question	A specific question that your study will answer
Research topic	A specific issue in the area of study
Risk	Something dangerous or bad that might happen

Sample	The group of people who participate in the data collection
Sampling	Choosing the people who will participate in your research (your sample)
Secondary data	Data that has already been collected by someone else (census data, for example)
Sensitive (topic)	Can easily cause people to be upset or angry
Source (of information)	A person, book, document, article, etc. that provides information
Subjective	From a particular person's perspective; personal
Taboo	Something that is not talked about because society thinks it is wrong or embarrassing
Theory	A collection of ideas intending to explain something
Transcribing	Listening to the recordings and writing down exactly what you hear
Valid	Acceptable and based in evidence
Variable	Characteristics, numbers or quantities that can be measured or counted (Australian Bureau of Statistics, n.d.)

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Appendices

Appendix 1. Table for developing questions

Research question	What do I want to know?	Actual questions for participants	Possible follow-up questions

Appendix 2. Interview and focus group discussion guides (template)

- Introduce interviewers/facilitators and give necessary background information
- Thank participants
- Explain the purpose of the study
- Explain participants' rights and give informed consent forms

Topics for discussion	Actual questions	Follow-up questions

Appendix 3. Risk assessment template

A: Risks to the researchers				
No.	**Question**	**Yes/No**	**Probability of risk (low, medium, high)**	**Action to be taken**
A1	Will you be collecting data in an area you are not familiar with?			
A2	Will you be collecting data in an unstable area?			
A3	Will you be collecting data on a politically sensitive topic?			
A4	Will you be collecting data on a culturally taboo topic?			
A5	Will you be collecting data alone or staying in the data collection area alone?			
A6	Will your travel involve risks (roadblocks, poor road conditions, health care, security)?			
A7	Are there any other risks that you could face?			

B: Risks to participants				
No.	**Question**	**Yes/No**	**Probability of risk (low, medium, high)**	**Action to be taken**
B1	Will your participants be children (under 18) or not be fully able to give informed consent?			
B2	Will you provide a full explanation of the research before they agree to participate?			
B3	Will participants remain anonymous?			
B4	Will your data collection include sensitive topics, such as violence, physical or psychological disorders, drug or alcohol use, criminal behavior, or sexuality?			
B5	Will your data collection possibly include information regarding participants' involvement in illegal activities?			
B6	Will your data collection possibly include participants' discussing or thinking about bad memories?			
B7	Will your data collection possibly include criticism of governments or other institutions?			
B8	Will your data collection possibly lead to conflict between participants?			
B9	Will data be kept confidential?			
B10	Will data be securely stored?			
B11	Will your participants face any other risks in their daily life or work due to their participation in your research project?			

Appendix 4. Informed consent form template

Informed consent form

Research title:

Researcher name(s):

Institution:

Email address:

Phone number:

Please carefully read the information provided below and, if you agree to participate in this study, sign below.

Please tick Yes or No.

		Yes	No
1	I have carefully read the information about this research project, and I understand the purpose of the research.		
2	I understand that my participation is voluntary, and I can stop participating at any time without giving a reason.		
3	I allow the interview to be recorded (audio only).		
4	I understand that what I say in the interview will be used for the project findings.		
5	I understand that my words may be quoted in the research report.		
6	I agree for my name to be used in the research report (which will be published and widely available).		
7	I understand that my data will be kept securely and only the researchers will have access to my data.		
8	I agree to participate in this research.		

Name:

Signature:

Date:

Appendix 5. Checklist for data collection

- ☐ I have prepared the questionnaire, interview guide or focus group discussion guide.
- ☐ I have scheduled enough time for the data collection period.
- ☐ I have done a pilot study (see *Chapter 8: Doing a Pilot Study*).
- ☐ I have enough money and resources for printing, travel, or other items.
- ☐ I have done a risk assessment (see *Chapter 11: Ethics and Risks*).
- ☐ I can confidently introduce myself and my research project.
- ☐ I am familiar with the cultural context of the data collection locations and have local contacts in the area.
- ☐ I have defined the research population and made a plan for selecting the sample.
- ☐ I have planned to take notes and record the interview or focus group discussion (if applicable).
- ☐ I have practiced my interviewing or facilitation skills (if applicable).
- ☐ I have printed enough copies of the questionnaire (if applicable).
- ☐ I have prepared the participant consent forms (see *Chapter 11: Ethics and Risks*).
- ☐ I have thought about potential challenges and how to overcome them.

Appendix 6. Sample outline of a research report

1. Introduction

[Introduce the context and the research problem. Finish with the research question].

2. Theoretical Background/Literature Review

[Summarize what you have learnt from the literature review to provide a full background on the topic being studied].

3. Methodology

[Describe the steps you took to carry out your research project under each sub-heading].

3.1. Method

3.1.1. Development of method

3.2. Sample and sampling

3.3. Procedure

3.4. Considerations of ethics and risks

3.5. Data analysis

4. Findings/Results

[Present your findings according to theme or topic].

5. Discussion, Conclusion and Recommendations

[Interpret your findings and discuss them within the context of the current literature and theory. Include limitations of the study. Finish with your main conclusions and recommendations].

5.1. Discussion of the findings

5.1.1. Evaluation/limitations of the study

5.2. Conclusion and recommendations

Reference List

[Provide a list of all the resources you cited in your report].

Appendices

[This is optional and can include interview guides, questionnaires, risk assessments, etc.].

Notes

Research Projects from Start to Finish

An Introductory Guide to Conducting Research in Myanmar

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