Navigating Communication Research: A Practical Guide for Media Practitioners

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Contents

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Saylor Academy. (2012). Principles of Sociological Inquiry: Qualitative and Quantitative Methods (v. 1.0). https://saylordotorg.github.io/text_principles-of-sociological-inquiry-qualitative-and-quantitative-methods/index.html

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Introduction

This book is dedicated to exploring how we acquire knowledge and understand the truth. Specifically, we will delve into the ways communication professionals can gain insights into society using research and effectively share that knowledge with the general public.

Research methods represent a systematic process of inquiry used to gain understanding about our social world. Various techniques can be used to accomplish this and researchers must always make choices that will have both benefits and limitations.

One of the primary ways we can learn about research methods is through peer-reviewed academic articles. However, these documents are not intended for the general public. This can make deciphering them feel like learning a new language. Nevertheless, with additional guidance, research can become more accessible. Our hope is that you may find value in incorporating research into your professional practice if you have not already done so. You will also gain a better understanding of how communication researchers themselves use different research methods and the choices they have to make in their study designs.

1. What is Research, and Why Should Media Practitioners Care?

Learning Objectives for Chapter

- Describe what is meant by the term "research methods."
- Recognize factors that may lead to biased or misleading information dissemination.
- Analyze the roles of researchers, communication professionals, and consumers in contributing to inaccurate research reporting.
- Evaluate the significance of reporting on research accurately from the perspective of media professionals.

Reporting on Research

Research methods can be described as a systematic process of inquiry to learn about the social world, but they are not always easy to understand and decode.

Comedian John Oliver (Last Week Tonight, 2016) humorously and critically addresses the state of science reporting, shedding light on the prevalence of misinformation in media outlets. In doing so, he reminds us that research scientists, the media, and consumers all play a critical role in perpetuating the cycle of poor research reporting.

The rest of this chapter is dedicated to taking a deeper look at what factors contribute to this trend and the kinds of things Oliver (Last Week Tonight, 2016) was discussing.

The research scientist's role

Oliver (Last Week Tonight, 2016) reminds us that researchers can inadvertently contribute to poor reporting on science through various practices or behaviours. Below are some of the key ways this can happen.

- **Succumbing to the pressures to publish:** Researchers facing pressures to publish frequently or in high-impact journals may rush through the research process, leading to potential methodological flaws and incomplete reporting.
- **Exaggerating findings:** Researchers may exaggerate the significance of their study's results to attract attention from media outlets or funding agencies. This can lead to sensationalized headlines and misleading reporting. For example, a study on a new potential cancer treatment might report a slight improvement in survival rates as a groundbreaking breakthrough, leading to headlines like

"Miracle Cure for Cancer Discovered!" when the actual benefits are more modest.

- **Poor study design and/or statistical analysis:** Flawed experimental designs or improper statistical analyses can lead to misinterpretation of results and erroneous reporting. For example, Oliver (2016) emphasizes the practice of *p-hacking*, which occurs when a researcher plays around with the variables until they find statistically significant results. This also occurs when a study with a small sample size and flawed experimental design gets published and receives widespread media coverage, despite not meeting rigorous scientific standards.
- **Lack of replication studies:** Failure to replicate study findings (in which a scientist recreates a study that's already been done to see if they get the same results) can lead to the dissemination of erroneous or misleading results, contributing to a *replication* crisis in some scientific fields.
- **Conflicts of interest:** Researchers with financial or other conflicts of interest may inadvertently skew their findings or downplay certain aspects of the study, affecting the accuracy of the reported results.
- **Neglecting to highlight limitations:** Researchers may fail to adequately communicate the limitations of their study, which could lead to the misinterpretation of results by reporters and the public.

It is important to note that while some researchers may inadvertently contribute to poor reporting, many diligent scientists and communicators strive to convey scientific information to the public accurately. Responsible research communication involves clear, transparent, and honest reporting of research findings and their limitations.

The media's role

The media can also play a significant role in contributing to poor science reporting. While the media serves as an essential bridge between the scientific community and the general public, several factors can lead to inaccuracies and sensationalism in science reporting. Some ways in which the media can contribute to the problem are outlined below.

- **Overhyping scientific discoveries:** Media outlets may exaggerate the significance of scientific findings, presenting them as groundbreaking or conclusive, even when the research is preliminary or inconclusive. For example, a study showing a slight increase in the risk of a specific health condition might be reported as "This Common Food Increases Your Risk of Cancer by 50%!" without providing proper context about the actual magnitude of the risk.
- **Cherry-picking data and studies:** Media may selectively report studies that support a particular narrative while ignoring or downplaying conflicting research, leading to biased portrayals of scientific topics.
- **Lack of context:** Sometimes, scientific findings are presented without proper context or acknowledging the broader body of research, leading to misinterpretations. For instance, consider a study that examines the effects of a new exercise regimen on weight loss. The study finds that participants who followed the new exercise routine lost slightly more weight on average compared to those in the control group. However, accurate reporting may lack the following: a baseline comparison, details on the duration of the study or sample size, or a consideration of other factors that might contribute.
- **Prioritizing sensationalism and clickbait headlines:** Media outlets may use sensational headlines and clickbait tactics to attract readers, often at the expense of accurate and nuanced

reporting. For example, a media outlet, eager to attract more readers may use the following headline: "Miracle Berry Found: Eat This Fruit Daily and Never Get Sick Again!" The public may be misled about the actual health benefits of strawberries and might make decisions based on incomplete or exaggerated information.

- **Rapid reporting:** Just like there is pressure on academics to get their work published, the need to deliver news quickly can result in issues. While the desire for breaking news and timely reporting is essential in the fast-paced world of journalism, it's crucial for media outlets to balance speed with accuracy. Journalists must prioritize fact-checking, verification, and corroborating information from multiple sources before publishing.

- **Absence of peer review:** Some media outlets may report on scientific findings before they have undergone rigorous *peer review*, leading to unreliable or premature information being disseminated. Media outlets should exercise caution when reporting scientific findings that have not undergone peer review. They can clearly state that the research is preliminary and subject to future evaluation. Waiting for peer-reviewed publications or seeking input from independent experts can help ensure the accuracy and reliability of science reporting.

- **Misinterpretation of statistics:** Reporters need to understand statistical data to avoid misleading interpretations and conclusions. For example, if there is a study investigating the relationship between coffee consumption and the risk of heart disease. The study involves a large sample size and carefully controlled variables. The results show a slight increase in the risk of heart disease among individuals who consume more than five cups of coffee per day compared to those who drink one cup or less. A reporter with limited statistical knowledge might misinterpret these findings and write a headline like: "Coffee Causes Heart Disease: Study Reveals the Dangers of Your Morning Brew!" The headline fails to provide context

about the actual magnitude of the risk. While the study might find a statistically significant increase in risk, the actual numerical increase might be quite small in practical terms.

Oliver (Last Week Tonight, 2016) argues that the consequences of misrepresentation are serious and can make us lose faith in science and he is not wrong. To improve science reporting, media outlets should prioritize accuracy, provide appropriate context, and ensure that journalists and writers are well-informed about the scientific topics they cover. Collaboration between scientists and journalists can also help ensure that scientific information is communicated effectively and responsibly to the public.

The consumer's role

Consumers, or the general public, can also inadvertently contribute to poor science reporting through their behaviour, preferences, and engagement with media and information. Below are some ways in which consumers may play a role in the spread of misinformation or poor science reporting,

- **Confirmation bias:** Consumers may be more likely to believe and share information that aligns with their preexisting beliefs, amplifying misinformation and neglecting accurate science reporting. Suppose there is a contentious debate about the safety of a specific type of technology, "TechX." Consumers who have preexisting beliefs that TechX is dangerous might be more likely to believe and share news articles or social media posts that support their views. For instance, they might share a news article titled "Experts Warn About the Hidden Dangers of TechX," without critically evaluating the credibility of the sources or the quality of the evidence presented. This confirmation bias can amplify misinformation and neglect

accurate science reporting, as consumers may dismiss or ignore information that challenges their beliefs.

- **Falling prey to "echo chambers" and "filter bubbles":** Consumers often seek out information from sources that echo their own perspectives, reinforcing existing beliefs and excluding diverse viewpoints. For example, individuals who are skeptical about vaccination might only consume news from sources that promote anti-vaccine views. This behaviour can create *echo chambers* and *filter bubbles, reinforcing* consumers' existing beliefs and excluding diverse perspectives. As a result, consumers may be less exposed to accurate science reporting that challenges their preexisting notions, leading to a skewed understanding of scientific issues.

- **Sharing unverified information:** Consumers may share news and information without doing additional research. For instance, a sensational health claim, like "This Herb Cures All Diseases!" might go viral on social media without being thoroughly vetted by experts. The rapid sharing of unverified information can lead to the spread of misinformation, as consumers unknowingly contribute to the propagation of unreliable content.

- **Lack of media literacy:** Insufficient media literacy skills can make consumers susceptible to misinformation and poor science reporting, as they may need help to distinguish reliable sources from unreliable ones. This includes needing to understand who funded a specific research project and asking why it was funded.

- **Over-reliance on social media:** Many consumers obtain news and information from social media platforms, where accuracy and fact-checking may be limited, leading to the spread of misinformation.

- **Misunderstanding of scientific concepts**: Consumers may lack a basic understanding of scientific principles, making them susceptible to misinterpretations of scientific information. For example, a study on climate change might use complex

terminology and statistical analyses, making it challenging for consumers without a scientific background to grasp the nuances of the research.

- **Preference for sensationalism and viral content:** Consumers may prefer sensational or attention-grabbing news stories, leading media outlets to prioritize such content. For instance, a dramatic headline like "Scientists Discover Alien Life!" may attract more clicks and shares than a nuanced and accurate article about recent developments in astrobiology.

The general public has the power to influence media practices by being critical consumers of news, supporting reliable and reputable sources, and engaging in science communication efforts that prioritize accuracy and context. Media literacy and critical thinking skills are essential for consumers to discern credible information from sensationalized or misleading content in the realm of science reporting.

Why Should Communication Professionals Care?

Thus far this opening chapter has shown that reporting on research is a three-way street that involves changes in practices from scientists (natural and social), reporters, and consumers alike. While change may be hard to ensure on the side of the general public and or academic researchers there are some clear benefits to you engaging more seriously with this process.

As an aspiring broadcaster or journalist, understanding how to read and interpret tables and research findings holds significant relevance in your field of communications. There are several reasons why knowledge in research can be beneficial for you:

- **Enhancing your journalism and storytelling skills:** Familiarity

with research studies allows you to gain a deeper understanding of various issues and ask more effective and thoughtful questions during interviews. This, in turn, enhances your ability to tell compelling and well-informed stories. By delving into research, you can better comprehend the responses of your sources and ask relevant follow-up questions (Ordway, 2017).

- **Holding public officials accountable**: As a communication professional, research skills can empower you to hold public officials accountable. For instance, when policymakers implement new policies to achieve specific outcomes, your research expertise can help you assess whether similar policies have been successful elsewhere. This knowledge will guide your inquiries and enable you to critically examine the potential impacts of these policies (Ordway, 2017).

- **Increasing your credibility:** Knowing research methodologies and statistical significance enhances your credibility as a communicator. You will be better equipped to interpret research findings accurately, avoiding misrepresenting results. Understanding the distinction between statistical significance and practical importance ensures you present information precisely and clearly. (Ordway, 2017). When encountering complex results, reaching out to researchers for clarification is a valuable practice that can help you relay their findings correctly (Ordway, 2017).

- **Accurate representation of academic ideas:** In the world of journalism and academia, the potential for misinterpretation of academic ideas exists. For instance, "The Conversation," a platform bridging journalism and academia, highlights the significance of accurately representing scholarly work. As a communication professional, understanding research empowers you to ask informed questions and accurately convey the ideas and findings of academics, thus maintaining the integrity of their work (Burell, 2016).

Reflection Question:

Based on what you read, identify two key strategies that you as a consumer of media could implement to improve your skills in evaluating scientific information. Explain how you could implement these strategies in your daily routine. Document your thoughts in a 200-300 word post.

Key Chapter Takeaways

- Research methods are described as a systematic process of inquiry to learn about the social world.
- Scientists, media professionals and consumers all play a role in the spread of untrue information regarding scientific studies.
- Proficiency in reading and comprehending research is essential for you as a media professional. It will not only enhance your storytelling skills and ability to hold officials accountable but also bolster your credibility as a communicator, ensuring accurate representation of research findings and academic ideas in your reporting.

Key Terms

Research methods: a systematic process of inquiry applied to learn something about our social world.

  Replication studies: When a researcher reproduces a study that's already been done and gets the same results. Not many researchers do these studies as no one wants to be second in research.

  P-hacking: Collecting all variables and playing around with them to find statistically significant results.

  Peer review: Assesses the validity of research. When a piece of

research is peer-reviewed, it is given the stamp of approval by other academics and researchers. Some peer review processes are more rigorous and selective than others.

Statistically significant: Asserts that the relationship between two variables likely isn't due to chance or sampling error.

Echo Chamber: An echo chamber refers to a situation in which individuals or groups only interact with information, opinions, or ideas that reinforce their existing beliefs or ideologies. In this self-reinforcing environment, people are exposed to a narrow range of perspectives and are less likely to encounter diverse or conflicting viewpoints. As a result, their opinions and beliefs become more entrenched, making it challenging to have meaningful discussions or consider alternative views.

Filter Bubble: A filter bubble refers to the personalized information ecosystem that internet users experience when algorithms selectively show content based on their past behaviour, interests, and online activity. These algorithms analyze users' browsing history, search queries, social media interactions, and other data to deliver content that aligns with their preferences. Consequently, users are exposed to limited information, reinforcing their existing beliefs and preferences while potentially isolating them from differing viewpoints.

Further Reading and Resources

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2. Research Basics

Learning Objectives for Chapter

- Identify different ways of knowing and why research methods are beneficial to add credibility to stories.
- Recognize the different steps within the research process.
- Identify the difference between basic and applied research.
- Identify the difference between exploratory, descriptive and explanatory research.
- Identify the difference between qualitative and quantitative research approaches.
- Describe the benefits of research triangulation.

Introduction

If I were to claim that the world is flat, you would likely recognize that I'm mistaken. But how do you know I'm wrong? And why did people once believe in a flat Earth? Presumably, the shape of the Earth didn't change drastically from the time we believed one thing to the time we knew another; something changed our minds. Understanding what changed our minds and how can provide insights into our knowledge, beliefs, and the nature of truth.

This chapter aims to explore different ways of knowing, demonstrate the importance of research methods in adding credibility to stories, and cover key concepts such as the research process steps, basic versus applied research, types of research (exploratory, descriptive, and explanatory), qualitative versus quantitative approaches, and the benefits of research triangulation

Exploring Different Ways of Knowing

There are many different ways we acquire knowledge. Some key ones are outlined below.

- **Informal Observation:** We often know things from our direct experiences, but this observation process isn't always reliable without systematic assessment. Imagine you've always believed that spicy food causes stomach ulcers because you've experienced discomfort after eating spicy meals. However, without systematically studying the relationship between spicy food and ulcers, your belief may not be accurate. Informal observation based on personal experience can sometimes lead to incorrect conclusions.
- **Selective Observation:** Sometimes we only see patterns we want to, assuming they apply in all contexts. For example, someone might generalise about all men based on one

experience. Suppose you believe that all politicians are corrupt because you've seen several news stories about politicians involved in scandals. However, this belief is an example of selective observation because it focuses only on instances that confirm your preconceived notion while ignoring instances of honest politicians.

- **Overgeneralization:** People may assume what they've always known to be true based on authority figures or tradition, like the urban legend of a woman cutting the ends off ham because her mother did so without realising the reason. An example of overgeneralization is when someone believes that all millennials are lazy because they know a few millennials who struggle to find employment. This assumption ignores the diversity within the millennial generation and unfairly applies a broad stereotype based on limited observations.

- **Relying on Authority:** We often trust information from authorities like parents, public figures, or media sources without critically evaluating it. Imagine a person who believes a conspiracy theory simply because a well-known public figure or celebrity endorses it without critically evaluating the evidence. This reliance on authority can lead to misinformation and reinforce false beliefs without considering alternative perspectives or evidence.

Recognizing the limitations of these methods, we turn to a *systematic research process* to acquire knowledge. Research methods provide a structured approach to gathering information, helping us move beyond hunches and develop credible insights.

This chapter introduces these methods, aiming to show their importance in making storytelling efforts more credible and compelling for media professionals.

Understanding the Research Process: A Quick Visual

In journalism and broadcasting, a practitioner often aims to find and distil existing knowledge. With research methods, as the previous sections noted, the aim typically is to discover new knowledge to challenge existing approaches.

Below is a look at the general dynamics of the research process that allows investigators to achieve this aim.

Figure 2:1

The Research Process
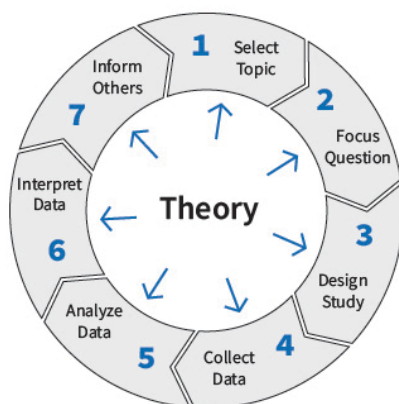
How and where does this process differ or resemble what you do as a media professional when producing a story, a podcast, a documentary, or other communication product for the general public? One key difference that might come to mind for you is the role that theory plays.

As you can see in this diagram, theory lies at the centre of the research process cycle. Just as researchers might examine the same

topic from different levels of inquiry, media professionals could investigate the same topic from various theoretical perspectives. Although their research questions may be the same, the way they make sense of the phenomenon they are investigating will be shaped in large part by the theoretical assumptions underlying their approach.

Differentiating between Basic versus Applied Research Knowledge

Similar to the social sciences, effective communication involves uncovering truths in society and conveying them to the public in an organised manner. Research translation is crucial in shaping society, from highlighting issues in government policy to addressing social oppression and informing treatments for conditions like addiction or diabetes.

Storytelling and research translation rely on multiple quality research studies to lend credibility to narratives. However, not all research offers the same level of credibility. Understanding the distinction between basic and applied research is essential for research translation.

Basic research, driven by curiosity, expands our understanding of the natural world without immediate practical applications. It aims to advance knowledge, explore theoretical concepts, and contribute to scientific understanding, often involving theoretical exploration, experimentation, and observation.

Applied research focuses on solving specific problems or addressing practical issues using existing scientific knowledge. It aims to address real-world challenges, make improvements, or develop practical applications based on existing knowledge, often yielding more immediate and tangible outcomes.

In essence, basic research expands theoretical understanding, while applied research addresses practical challenges and creates

useful applications. Both approaches are crucial for advancing science and improving our quality of life.

Let's consider examples of basic and applied research within communication studies:

Basic Research Example:

Research Question: What underlying cognitive processes influence how people interpret ambiguous visual messages in advertising?

In a basic research study, communication researchers might investigate the cognitive mechanisms involved in interpreting ambiguous visual messages, contributing to theoretical understanding without direct practical applications.

Applied Research Example:

Research Question: How can social media campaigns be designed to effectively promote healthy eating habits among adolescents?

In an applied research study, communication researchers might design and implement a social media campaign to promote healthy eating habits, aiming to address real-world issues and provide actionable insights. It can often serve an external client.

In summary, as shown in Table 2:1 below, basic research explores theoretical aspects of communication processes, while applied research addresses practical challenges or develops strategies for specific communication goals, contributing to advancing the field and addressing real-world communication issues.

Table 2: 1

Key Differences Between Basic and Applied Research

Aspect	Basic Research	Applied Research
Purpose	To expand theoretical understanding	To address practical challenges or solve problems
Goal	To contribute to knowledge and theory development	To develop practical solutions or applications
Motivation	Driven by curiosity and desire for knowledge	Driven by solving specific problems or needs often for a client
Timing of Results	May take longer to yield tangible outcomes	Often yields more immediate and tangible results
Approach	Focuses on theoretical exploration	Focuses on practical problem-solving often for a client
Application	Often lacks direct real-world applications	Directly applicable to real-world situations
Examples	Studying fundamental principles of physics	Developing a new vaccine or medical treatment
	Exploring underlying cognitive processes	Designing a social media campaign for public health
	Investigating the origins of the universe	Evaluating the effectiveness of a marketing strategy

This table summarises the fundamental differences between basic and applied research in terms of purpose, goal, motivation, timing of results, approach, and examples.

Understanding the Difference Between Qualitative or Quantitative Research Approaches

Qualitative and quantitative research represent two distinct methodologies in the field of research, each characterised by its unique approaches and goals.

Qualitative research primarily focuses on understanding the complex nuances of human behaviour, experiences, and social phenomena. It delves into the underlying meanings and motivations that drive individuals or groups. This type of research often involves collecting non-numerical data, such as textual narratives, images, or observations. Researchers use methods such as interviews, focus groups, participant observation, and textual analysis to gather data. The analysis process in qualitative research is interpretive, identifying themes, patterns, and narratives within the data. Results are typically presented descriptively to capture the richness and depth of the studied phenomenon.

On the other hand, quantitative research seeks to quantify relationships, patterns, and trends by employing numerical data and statistical analysis. Its focus lies in objective measurements and the establishment of statistical relationships. This type of research often involves structured surveys, experiments, and content analysis. Statistical analysis plays a crucial role, as researchers utilise various statistical tests to identify correlations, differences, and patterns among variables. Quantitative research results are communicated through statistical tables, graphs, and charts, facilitating the presentation of trends, predictions, and statistical significance.

The choice between qualitative and quantitative research hinges on the research question, objectives, and the nature of the

phenomena under investigation. Qualitative research is well-suited for exploring complex and context-dependent aspects of human behaviour and experience, providing in-depth insights into motivations and meanings. In contrast, quantitative research excels in quantifying relationships and generating objective, numerical data that can be statistically analysed to establish patterns and trends. Both methodologies contribute to advancing knowledge in their respective domains and are valuable tools in the research toolkit. Here is a quick summary of these differences.

Table 2: 2

Key Differences Between Qualitative and Quantitative Research

Aspect	Qualitative Research	Quantitative Research
Focus	Understanding human behaviour, experiences, and social phenomena	Quantifying relationships, patterns, and trends using numerical data
Data Collection	Non-numerical data (e.g., textual narratives, images, observations)	Numerical data (e.g., surveys, experiments, measurements)
Methods	Interviews, focus groups, participant observation, textual analysis	Surveys, experiments, content analysis, standardised instruments
Analysis	Interpretive, identifying themes, patterns, and narratives	Statistical, identifying correlations, differences, and patterns among variables
Presentation of Results	Descriptive, capturing the richness and depth of the studied phenomenon	Statistical tables, graphs, and charts, presenting trends and statistical significance

To illustrate, let's take an example topic within communication studies: the influence of social media on body image.

For a qualitative research project, the question might be: "How do young adults perceive their body image as influenced by social media platforms?" Researchers would aim to explore the subjective experiences of young adults through in-depth interviews and focus groups, uncovering the multifaceted ways in which social media contributes to body image perceptions.

In contrast, for a quantitative research project on the same topic, researchers might ask: "What is the correlation between social

media usage and adolescent body dissatisfaction?" They would administer a survey to a representative sample of adolescents to assess their social media habits and self-reported levels of body dissatisfaction. Statistical analyses would determine the strength and direction of the relationship between social media usage and body dissatisfaction.

Both the qualitative and quantitative research projects address the impact of social media on body image perception, but they do so in distinct ways. The qualitative project delves into nuanced experiences, providing depth and context, while the quantitative project focuses on establishing a statistical relationship, offering a quantitative assessment of the correlation.

It's worth noting that qualitative and quantitative methods are complementary rather than competing; they have different goals, strengths, and weaknesses. We will explore both approaches in more depth in the chapters that follow.

Differentiating between Exploratory, Descriptive and Explanatory Research

In research, both qualitative and quantitative researchers undertake different types of inquiries. Exploratory research aims to explore new areas, descriptive research focuses on describing characteristics, and explanatory research seeks to understand causes and effects. Let's dig a little deeper.

Exploratory research aims to explore new areas or phenomena where little is known or understood. It is often used when researchers are trying to gain insights into a problem or identify potential research questions. This type of research is typically qualitative and is not aimed at providing definitive answers, but rather at generating hypotheses or understanding complex phenomena.

An Example in Communication

Research Topic: The Impact of Social Media on Adolescents' Mental Health

Conducting interviews or focus groups with adolescents to understand their experiences with social media and its effects on their mental well-being. The goal would be to explore the various ways in which social media use influences their emotions and behaviours. It could be qualitative or quantitative.

Descriptive research aims to describe characteristics of a population or phenomenon. It focuses on answering questions about who, what, when, where, and how, without necessarily explaining why something is happening. Descriptive research often involves collecting data through surveys, observations, or existing datasets and analysing it to identify patterns or trends. This type of research is typically qualitative.

An Example in Communication

Research Topic: Television Viewing Habits of College Students

Administering a survey to college students to gather information about their television viewing habits, including the types of programs they watch, the amount of time spent watching, and their preferred viewing platforms. The results would provide a snapshot of the television consumption patterns among this demographic.

Explanatory research seeks to identify the causes and effects of a phenomenon. It goes beyond describing what is happening to explain why it is happening. This type of research often involves hypothesis testing and statistical analysis to establish relationships between variables and understand underlying mechanisms.

An Example in Communication

Research Topic: The Influence of News Framing on Public Opinion

Conducting an experiment where participants are exposed to different news articles on the same topic but framed in different ways (e.g., positively or negatively). The researcher would then measure changes in participants' attitudes or opinions to determine how the framing of news articles influences public perception.

In summary, when deciding between descriptive, exploratory, and explanatory research, it's important to consider your research question. What does your question ask? Are you seeking to understand the fundamentals of a new area, define and describe an activity or concept, or establish a causal relationship?

Triangulation in Acquiring Research Knowledge

Up to this point, we have discussed research design as an either/or proposition. Either you will collect qualitative data or you will collect quantitative data. In truth, you don't necessarily have to choose one approach over another. Some of the most highly regarded social scientific investigations combine approaches in an effort to gain the most complete understanding of their topic possible. Using a combination of multiple and different research strategies is called triangulation.

There are several types of triangulation, the key of which are outlined below.

Table 2: 3

Types of Triangulation

Triangulation Type	Description	Example
Data Triangulation	Using multiple sources of data to study a single research question.	A researcher gathers data on a topic through interviews, surveys, and observations.
Methodological Triangulation	Employing multiple research methods to investigate the same phenomenon.	Combining qualitative and quantitative methods within the same study.
Theoretical Triangulation	Drawing on multiple theories or perspectives to analyse and interpret data, providing a richer understanding of the phenomenon.	A researcher uses different theoretical frameworks to analyse data collected from interviews, surveys, and observations.
Investigator Triangulation	Involving multiple researchers to collect, analyse, and interpret data, bringing diverse perspectives and biases for a more balanced analysis.	A research team consists of researchers with different backgrounds and expertise working together on a project.
Time Triangulation	Studying the same phenomenon at different points in time to understand how it changes or remains constant over time.	A longitudinal study tracks the development of a behaviour or trend over several years to observe changes and patterns.

The benefits of research triangulation include reducing bias, increasing reliability, and enhancing the validity of research findings. By approaching a research question from different angles,

researchers can identify patterns, discrepancies, and areas of convergence, leading to a more robust and nuanced understanding of the topic.

Triangulation also requires careful planning and consideration, as it can be time-consuming and resource-intensive. Researchers must ensure that the different methods, data sources, or perspectives chosen for triangulation are relevant to the research question and effectively complement each other.

Reflection Question

How do the distinctions between qualitative and quantitative research impact the studies favoured by media professionals for knowledge translation to the public? Is there a societal preference for numerical data over rich, descriptive research, and for practical solutions over curiosity-driven inquiries among media professionals? How might this preference impact the stories they choose to tell? Document your thoughts in a 200-300 word post.

Key Chapter Takeaways

- There are several different ways that we know what we know but research methods are a much more reliable source of knowledge than most of our other ways of knowing.
- Theory lies at the centre of the research process cycle. Just as researchers might examine the same topic from different levels of inquiry, so, too, could they investigate the same topic from different theoretical perspectives.
- Basic research seeks to expand knowledge and understanding for its own sake, while applied research aims to use that knowledge to address practical challenges and create tangible

benefits.

- While qualitative research delves deep into the qualitative aspects of human experiences, capturing the richness and complexity of individual stories, quantitative research focuses on quantifiable patterns and statistical relationships within larger datasets.
- Exploratory research is conducted at the beginning of an investigation to understand the topic generally. Descriptive research aims to describe or define the topic, while explanatory research seeks to explain why particular phenomena work the way they do.
- Triangulation allows researchers to take advantage of the strengths of various methods and at the same time work to overcome some of each method's weaknesses.

Key Terms

Informal observation: An experiential perception lacking a structured assessment process, and therefore not inherently dependable as a representation of truth.

Selective observation: The act of recognizing desired patterns while disregarding other aspects, leading to presumptions of universality based on limited exposure.

Overgeneralization: The assumption of broad patterns from a narrow range of observations.

Authority: A recognized source of knowledge within a society that can influence our beliefs regarding truths.

Research methods: a systematic process of inquiry applied to learn something about our social world.

Research translation: Refers to the process of taking scientific findings, discoveries, and knowledge generated through research and effectively translating them into practical applications, policies,

or interventions that benefit society, industries, or specific communities.

Basic research: Scientific exploration driven by intrinsic curiosity, where researchers investigate subjects of personal interest.

Applied research: Scientific investigation pursued for purposes beyond or supplementary to a researcher's personal curiosity, often with a focus on practical applications.

Theory: A structured framework of educated conjectures about the functioning of phenomena.

Qualitative methods: Approaches for data collection that yield descriptive outcomes, such as textual or visual information, frequently involving activities like focus groups or interviews.

Quantitative methods: Data collection methods that can be expressed and condensed into numerical forms, frequently involving surveys and statistical figures.

Exploratory Research: Conducted at the outset of an investigation to gain a general understanding of a topic, often used to generate hypotheses or identify research questions.

Descriptive Research: Aims to describe or define a topic, focusing on answering questions about who, what, when, where, and how without necessarily explaining why.

Explanatory Research: Seeks to explain why particular phenomena occur in the way they do, aiming to establish causal relationships and understand underlying mechanisms.

Triangulation: Employing a blend of diverse research techniques to enhance the robustness validity and reliability.

Further Reading and Resources

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3. Reading Academic Research

Learning Objectives for Chapter

- Identify and explain the five key features of a good research question.
- Differentiate between strong and weak research questions.
- Identify the main sections contained in scholarly journal

articles.
- Evaluate key questions to be asked when analysing published academic research.

Introduction

One of the keyways we begin to understand reading research methods is via academic articles. They can and are often avoided by students. However, it is hoped that with some additional guidance around how to formulate good research questions, how to identify the parts of a research paper and read it more critically, these documents can become more accessible and hopefully something you want to incorporate into your professional practice instead of avoiding them!

Research Questions

All good research projects start with a strong research question. But what makes a good research question? There are at least five components to a good research question worth considering.

Firstly, while it may seem obvious that a well-formed research question takes the shape of an inquiry. To elaborate, it should be framed as a question that explicitly conveys the essence of the research's focus.

For instance, a research question should not merely present a statement like "explore the concept of being a child-free adult." Instead, it should transform this into an interrogative format such as: "What are the lived experiences of adults who choose a child-free lifestyle?" or "How does the media construct experiences of adults who choose a child-free lifestyle?" The formulation of an effective research question necessitates clarity and precision.

Another example might be that instead of trying to "investigate students' knowledge about current events or movies, a strong research question should be restructured to distinctly specify the research intention and might be: "How does exposure to current events through news media impact students' critical thinking skills?" or "What are the factors influencing students' preferences of movies from different genres?" In essence, crafting a research question involves transforming a topic of interest into a succinct and probing inquiry.

Secondly, a good research question is one that is well-focused. A well-focused research question is essential for guiding a study in a clear and purposeful direction. It narrows the scope of investigation to a specific and manageable topic, ensuring that the research remains targeted and efficient. This focus helps researchers avoid becoming overwhelmed by a broad or vague subject area and enables them to delve deeper into the particular aspects that matter most.

For instance, consider a research question about the effects of technology on children's learning. While this is a broad topic, a well-focused question could be: "How does the use of educational apps impact the vocabulary acquisition of preschool children?" This focused question narrows down the study to a specific technology (educational apps), a specific age group (preschool children), and a specific outcome (vocabulary acquisition). Imagine a researcher is interested in studying the relationship between diet and heart health. A broad question might be: "How do diets influence cardiovascular health?" However, a well-focused research question could be: "What is the effect of a Mediterranean diet on reducing cholesterol levels in adults with high blood pressure?" This focused question specifies the type of diet (Mediterranean), the target population (adults with high blood pressure), and the outcome of interest (reducing cholesterol levels). In essence, a well-focused research question illuminates a particular angle of inquiry within a broader subject.

Thirdly, a good research question is one that cannot be answered

with a simple yes or no. Imagine you're trying to figure out something interesting about how people think about gender norms. At first, you might think of a question like, "Does gender affect how much someone shaves?" If you just get a "yes" or "no" answer, you might not have much else to say. This kind of question limits what you can learn from an investigation. Once you know the answer is "yes" or "no," the investigation kind of stops. There's not much more to discuss. Now, think about a different way to ask the question: "How does gender influence how someone feels about body hair?" This new question goes beyond just "yes" or "no." It challenges researchers to dig deeper, explore more, and really understand all the different parts of the topic.

Fourthly, a good research question should be open to different possible answers. For example, here are two questions:

1. "What year was the first telegraph message sent?"
2. "How did different cultures use the telegraph to disrupt existing forms of communication?"

Which one makes a better research question? You likely answered two, but do you know why?

The second question is open-ended, inviting diverse interpretations and possible answers. This stimulates critical thinking, encourages researchers to uncover lesser-known historical facts, and enables them to draw connections that could contribute to a broader understanding of communication history. The question prompts research into intricate interactions between technology and culture. By exploring how the telegraph disrupted existing communication methods, researchers can uncover multifaceted narratives that involve not only technological aspects but also societal norms, economic factors, and cultural values. In contrast, while historically notable, the question concerning the first telegraph message's year confines itself to a single answer. It lacks the intricate layers of analysis, critical thought, and multi-dimensional exploration.

Finally, a strong research question should consider the relationship among multiple concepts. For example, let's say you are interested in how to be an effective public speaker. You might ask: "How does body language affect public speaking effectiveness?" However, why not open this up to a more sophisticated analysis by exploring the following question instead: "How does body language, vocal tone, and choice of words influence the overall effectiveness of public speaking in diverse cultural contexts?" This second question does not just focus on body language. In this case public speaking is not just about verbal delivery but also about nonverbal cues, cultural and social contexts associated with language choices, and interpersonal and intercultural dynamics. By thinking about these different dimensions, the researcher can draw on insights from complementary academic traditions to situate their findings including linguistics, communication studies, psychology, and cultural studies. This allows for a more well-rounded answer to emerge.

In sum, a good research question generally has the following features:

1. It is written in the form of a question.
2. It is clearly focused.
3. It is not a yes/no question (i.e. or is open ended).
4. It has more than one plausible answer.
5. It considers relationships among multiple concepts.

These criteria provide a great benchmark to begin evaluating research studies and consider how they might be used in the knowledge translation process.

Reading About Research Methods

Beyond just a research question, most research papers

generally consist of several core parts that serve specific purposes in presenting and communicating the research findings. Here are the key components commonly found in research papers:

- **Title:** The title serves as a concise and informative representation of the paper's content, offering readers an initial glimpse into the subject matter and the extent of the research investigation. An effective title encapsulates the essence of the study, guiding readers' expectations and piquing their interest in delving further into the paper's contents.
- **Abstract**: The abstract is typically about 150-250 words and summarises the paper's contents by outlining the research question, methodological approach, and key findings. This compact snapshot provides readers with a rapid overview of the central components of the study helping a reader quickly assess its relevance,
- **Introduction**: This section initiates the exploration by introducing the research's subject matter, underlining its importance, and furnishing historical context. It typically should end with a research question or hypothesis, laying the groundwork for the paper's content and objectives.
- **Literature Review**: A comprehensive literature review delves into existing scholarly contributions related to the research's focus. This section contextualises the study, identifies gaps within the current knowledge framework, and establishes a rationale for pursuing   new insights through the present investigation. It does not provide new data but summarises what has been done so far.
- **Methodology**: The methodology outlines the research design, detailing the procedures, techniques, and tools employed for data collection and analysis. By providing a transparent review, this section allows fellow researchers to replicate the study, assess its methodological soundness, and ultimately verifies the findings credibility.
- **Results**: The results section presents the empirical findings

emanating from data analysis. Tables, figures, and descriptive explanations are ways that the research data is often presented.

- **Discussion:** The discussion offers an interpretation of the results within the context of the research question. It illuminates the implications of the findings, examines their broader significance, and contrasts them against prior studies, aiming for connections and to further future scholarly outputs.
- **Conclusion:** In the conclusion, the principal findings are typically succinctly summarised, and their overarching implications highlighted. Study limitations and future research projects are usually offered.
- **References:** The references section assembles an exhaustive list of all cited sources, providing readers with the means to follow up regarding specific areas of interest. It enhances the paper's credibility.
- **Appendices:** The appendices provide supplementary information (for example the survey instrument or interview protocol followed), or additional data that complement the main body of the paper. While not integral to the central narrative, these materials may enrich the reader's understanding or allow for greater transparency.

These core parts collectively guide readers through the research process, from understanding the context and rationale to interpreting the findings and implications. Researchers use this structure to present their work systematically and coherently, ensuring that their findings are accessible and credible to the academic community and beyond.

Unpacking Tables

As noted in the previous section, tables are often used in the

discussion section. They are like a quick, summarised way of showing the most important parts of the research. Tables help to put lots of information in one place so you can understand it more easily.

How Tables Work

Some tables present descriptive information about a researcher's sample. For example, if gender was an important variable for a researcher's analysis, they might include how many men vs. women were participants in the study. "How many" or a frequency will usually be listed as the initial **N**, whereas the percent symbol (%) would be used to indicate percentages.

In a research study, a variable refers to any characteristic, attribute, or quantity that can be measured, observed, or controlled. Variables are essential to a study as they allow researchers to investigate and understand relationships, patterns, and effects within a research question.

In a research study, the terms "independent variable" and "dependent variable" describe two key components of the experiment or investigation. They play a crucial role in understanding cause-and-effect relationships between different factors under study.

The *independent variable* **(IV)** is the factor or condition the researcher deliberately manipulates or controls in an experiment. It is the variable thought to impact the dependent variable. The independent variable represents the cause or input in the study. Researchers change or vary the independent variable to observe its impact on the dependent variable.

For instance, in a study investigating the effect of different study techniques on exam scores, the independent variable would be the study technique being used. The researcher may use various study

methods, such as reading, summarising, or practising with flashcards.

It is important to note that the term "independent variable" is commonly used in quantitative research, particularly in experimental and quasi-experimental studies, where researchers aim to establish cause-and-effect relationships between variables. In contrast, in qualitative research, the concept of independent variables is less commonly used, as the focus is often on exploring complex phenomena and understanding the context rather than on manipulation and control.

Alternatively, the *dependent variable* (DV) is the outcome or response measured or observed in the experiment. It is the variable that is expected to change as a result of variations in the independent variable. The dependent variable represents the effect or outcome of the study.

As an example, in the study mentioned earlier, the dependent variable would be the exam scores of the participants. The researcher would measure how well the participants perform in the exam based on their different study techniques.

Demographics are typically considered independent variables in a research study. Demographics refer to characteristics or attributes of a population or sample, such as age, gender, ethnicity, income, education level, and so on. These characteristics are inherent to the individuals being studied and are not subject to manipulation by the researcher during the course of the study.

Demographics are treated as independent variables because they are used to categorise or describe the participants in a study based on certain characteristics. Researchers often use demographic variables to analyse and compare data across different groups. These variables are not influenced or affected by the study's manipulation or intervention, which is why they are independent.

In contrast, the dependent variable is the outcome or response that the researcher measures or observes to see if it is influenced by changes in the independent variable. The dependent variable is the focus of the study, and researchers aim to understand how it varies

in response to different conditions or levels of the independent variable.

To illustrate the difference, a study on the relationship between age (a demographic independent variable) and smartphone usage (the dependent variable) among a sample of participants.

In this example, the researchers would categorise the participants into different age groups based on their demographics (e.g., 18-25, 26-35, 36-45, etc.). The researchers do not manipulate the participants' age groups; they already exist as inherent characteristics of the participants. The researchers would then measure and analyse smartphone usage (dependent variable) across these age groups to determine any patterns or relationships between age and smartphone usage.

In summary, demographics are independent variables because they are not manipulated during the study and are used to categorise participants or describe the characteristics of the sample, whereas the dependent variable is the outcome or response that is measured or observed to assess its relationship with the independent variables.

The goal of manipulating and measuring the independent and dependent variables is to establish a cause-and-effect relationship between them. By controlling all other variables (known as *extraneous variables*) and focusing solely on the independent and dependent variables, researchers can draw meaningful conclusions about the impact of the independent variable on the dependent variable.

It's important to note that in some research designs, there may be more than one independent variable or more than one dependent variable. Additionally, the distinction between the two types of variables may not always be straightforward, depending on the complexity of the study. However, understanding the concept of independent and dependent variables is fundamental to designing and interpreting research findings accurately.

If a table presents a causal relationship (where the dependent variable changes based on the independent variable), independent

variables are typically located in the table's columns, and dependent variables can be found in the rows.

You can scan the rows to see how the values on the dependent variables change as the independent variable changes. In tables presenting quantitative data, you can usually find some information regarding the strength and statistical significance of the analysis. Statistical significance refers to a statistical concept that helps researchers determine whether an observed result is likely to be a real effect or if it could have occurred by chance. In other words, it helps researchers assess whether the relationship or difference they observe in their data is meaningful and not just random.

When a finding is said to be *statistically significant,* the results are unlikely to have occurred due to random fluctuations in the data. Instead, they suggest that there is a genuine relationship or difference between the variables being studied.

Statistical significance is typically determined through hypothesis testing. Researchers formulate a null hypothesis, which assumes that there is no true effect or relationship, and an alternative hypothesis, which posits that there is a real effect. They then analyse the data to see if the observed results are so extreme that they would rarely occur if the null hypothesis were true.

If the *p-value (probability value)* associated with the statistical test is below a predetermined threshold (often 0.05), researchers may conclude that the result is statistically significant. This means that the observed effect is unlikely to have occurred purely by chance, and there is evidence to support the alternative hypothesis.

The *null hypothesis* is the assumption that no relationship exists between the variables. For example, if the p value is 0.039%, it means that there is a 3.9% that the null hypothesis is correct. If the p value is less than 0.05, we would say that this is not statistically significant, and we can reject the null hypothesis. We would fail to reject the null hypothesis if the p value is 0.05 or greater.

To illustrate, imagine you come across a p value of 0.039%. This signifies a mere 3.9% chance that the null hypothesis holds true – a small indication that a relationship might indeed be present.

When the p value dips below the critical threshold of 0.05, it signals a lack of statistical significance. In this scenario, you're inclined to reject the null hypothesis, indicating that the variables likely share a meaningful connection.

Conversely, when the p value reaches or exceeds 0.05, it ushers in a different outcome. Here, you would refrain from dismissing the null hypothesis. Instead, you acknowledge that the data doesn't provide enough substantial evidence to sway you in favour of rejecting the initial assumption.

By understanding the nuances of the p value, you equip yourself with a powerful tool to decipher the significance – or lack thereof – of research findings. However, it is important to note that statistical significance does not necessarily imply practical or meaningful significance. A finding can be statistically significant but have a very small or negligible effect in real-world terms. Researchers need to interpret statistical significance within the context of their study and consider the practical implications of the results.

Questions Worth Asking While Reading Research Articles

Media professionals play a crucial role in interpreting and communicating academic research to the public. When evaluating an academic research article for journalistic purposes, there are several key questions they should consider:

What is the Research Question or Hypothesis?

Media professionals should start by understanding the central inquiry the researchers aimed to address. This sets the stage for the entire study and helps readers grasp the article's focus. Some great

rules about what makes research good were given at the start of this chapter.

Who Conducted the Research?

Investigating the authors' credentials and affiliations is essential. It is important to verify if they are experts in the field and affiliated with respected institutions or organisations. This can impact the credibility of the research.

What is Methodology?

Understanding the research methods used is crucial for assessing the study's validity. Media professionals should investigate whether the methods align with the research question and are widely accepted in the academic community. Some additional tips about this will come in the chapters that follow.

What is the Sample Size and Composition?

Evaluating the size and characteristics of the sample helps readers determine if the findings can be generalised to a broader population. A small or unrepresentative sample may limit the study's significance.

What were the Findings?

Readers should extract the main outcomes and results of the research. This involves identifying key data points, trends, or correlations that emerged from the study.

What are the Limitations?

Recognizing the study's limitations provides a balanced perspective. Factors such as potential biases, flaws in methodology, or aspects that could impact the accuracy of the findings are all things to consider.

Has the Study Been Peer-Reviewed?

As noted previously, a peer-reviewed study has undergone scrutiny by experts in the field, enhancing its credibility. Asking whether a research article has been through this rigorous evaluation process is key.

Is the Article Published in a Reputable Journal?

The reputation of the journal matters. Whether the publication has a high impact factor, rigorous review process, and is respected within the academic community are all worth exploring.

Is the Article Accessible to the Public?

Accessibility is essential t for effective dissemination. Is the article behind a paywall or freely available, which impacts how widely the research can be shared and understood, may be important.

Are There Conflicts of Interest?

Scrutinising potential conflicts of interest is essential. Whether the authors have financial or personal interests that could influence the study's outcomes is always worth considering.

Are the Findings Put in Context?

The work should contextualise the research within the broader body of knowledge. Highlighting how the findings contribute to or challenge existing understanding provides a more nuanced perspective.

Has the Research Been Replicated?

Replication enhances the reliability of research. Whether other researchers have attempted to replicate the study's results and whether they achieved similar outcomes is often a great question.

Are There Practical Takeaways?

Translating complex findings into practical insights is valuable for the audience. Media professionals should explore whether the research has implications for everyday life, policy-making, or specific actions.

Additional considerations can be found in the table below.

Figure 3.1

Questions on Report Sections

Report section	Questions worth asking
Abstract	What are the key findings? How were those findings reached? What framework does the researcher employ?
Acknowledgements	Who are this study's major stakeholders? Who provided feedback? Who provided support in the form of funding or other resources?
Introduction	How does the author frame their research focus? What other possible ways of framing the problem exist? Why might the author have chosen this particular way of framing the problem?
Literature review	How selective does the researcher appear to have been in identifying relevant literature to discuss? Does the review of the literature appear appropriately exhaustive? Does the researcher provide a critical review?
Sample	Was probability sampling or non-probability sampling employed? What is the researcher's sample? What is the researcher's population? What claims will the researcher be able to make based on the sample? What are the sample's major strengths and major weaknesses?
Data collection	How was the data collected? What do you know about the relative strengths and weaknesses of the method employed? What other methods of data collection might have been employed, and why was this particular method employed? What do you know about the data collection strategy and instruments (e.g., questions asked, locations observed)? What don't you know about the data collection strategy and instruments?
Data analysis	How was the data analyzed? Is there enough information provided that you feel confident that the proper analytic procedures were employed accurately?
Results	What are the study's major findings? Are findings linked back to previously described research questions, objectives, hypotheses, and literature? Are sufficient amounts of data (e.g., quotes and observations in qualitative work, statistics in quantitative work) provided in order to support conclusions drawn? Are tables readable?
Discussion/conclusion	Does the author generalize to some population beyond their sample? How are those claims presented? Are claims made supported by data provided in the results section (e.g., supporting quotes, statistical significance)? Have limitations of the study been fully disclosed and adequately addressed? Are implications sufficiently explored?

By addressing these questions, media professionals can effectively analyse, interpret, and communicate academic research to the public in a comprehensive, accurate, and informative manner.

Reflection Question

How can using well-crafted research questions and understanding the structure of academic articles improve your ability to read, understand, and apply research in your future career? Document your thoughts in a 200–300 word post.

Key Chapter Takeaways

- There are at least five components to a good research question worth considering which include: containing a question format, having a proper focus, not confined to a yes or no answer, allowing for unexpected answers to emerge, and including multiple concepts to be measured.
- Tables provide important information about a paper and can often include p values that determine the findings' strength in statistical terms.
- Media professionals play an important role in explaining and sharing academic research with the public. They should be critical when looking at a research article to use in their news work.

Key Terms

Research question: A way of framing a researcher's particular area

of interest. Good research questions have five key features: written in the form of a question, focused, not a yes/no question, has more than one plausible answer, and considers relationships among concepts.

Abstract: An abstract is a concise summary of a research paper or article that provides a brief overview of the study's main objectives, methods, results, and conclusions. It serves as a snapshot of the entire work, allowing readers to quickly understand the essential aspects without having to read the full document.

Literature Review: A literature review is a critical and comprehensive analysis of existing research and scholarly writings on a specific topic or subject. It involves reviewing, summarising, and synthesising relevant studies, theories, and findings to provide context, identify gaps, and establish the theoretical foundation for a new research study. The literature review helps researchers understand the current state of knowledge in their field and positions their own work within the broader academic discussion.

Variables: In a research study, a variable refers to any characteristic, attribute, or quantity that can be measured, observed, or controlled.

Independent Variable: The independent variable is the factor or condition in an experiment or study that is intentionally manipulated or changed by the researcher. It is used to observe its effect on the dependent variable. In cause-and-effect relationships, the independent variable is considered the potential cause that influences the study's outcome.

Dependent Variable: The dependent variable is the outcome or response being measured or observed in an experiment or study. It is the variable that researchers are interested in understanding or explaining, and its changes are thought to be influenced by the independent variable. The dependent variable is the effect or result that researchers analyse to draw conclusions about the impact of the independent variable.

Demographic Variables: Demographic variables are characteristics of a population or sample that provide information

about its composition, such as age, gender, ethnicity, income, education, and marital status. These variables help researchers categorise and understand the individuals or groups being studied, allowing for the analysis of patterns and trends within different segments of the population.

Extraneous Variables: Extraneous variables are factors or conditions that are not the main focus of a research study but can affect the study's outcome if not controlled for. They are external influences that may unintentionally influence the relationship between the independent and dependent variables, potentially leading to misleading or inaccurate results.

Statistical significance: A statistical concept that assists researchers in figuring out if a seen outcome is a genuine effect or if it might have happened randomly.

Null hypothesis: Posits no significant difference or effect between variables under investigation, serving as a baseline for comparison in hypothesis testing.

P Value: A statistical measure used in hypothesis testing to determine the likelihood of obtaining results as extreme as, or more extreme than, the observed data, assuming that the null hypothesis is true. It helps researchers assess the strength of evidence against the null hypothesis and make informed decisions about its rejection or acceptance. A lower p value indicates stronger evidence against the null hypothesis, suggesting that the observed results are less likely to occur by chance. Typically, a p value threshold (often 0.05 or 0.01) is used to determine whether the results are statistically significant, leading to the acceptance or rejection of the null hypothesis.

Further Reading and Resources

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4. Defining and Measuring Concepts

Learning Objectives for Chapter

- Define key terms associated with measuring concepts.
- Identify the differences between how qualitative and quantitative researchers define reliability and validity.
- Identify several questions to ask about measurement when

reading the research results.

Introduction

Operationalisation is a critical process in communication research that bridges the gap between abstract concepts and tangible measurements. It involves translating theoretical ideas and constructs into concrete variables that can be observed, quantified, and analysed. In this chapter, we delve into the concept of operationalisation through the metaphor of a "conceptual funnel." Just like a funnel narrows and refines substances, operationalisation transforms abstract concepts into measurable indicators.

By viewing through the lens of operationalization and the metaphor of the conceptual funnel, we aim to provide you with a comprehensive understanding of how to translate abstract ideas into measurable variables, thereby enabling you to make meaningful contributions to the field of communication research.

In this chapter, we will also examine the dimensions of validity and reliability in the context of both quantitative and qualitative research. We will explore some of the challenges and considerations each approach brings, highlighting the strategies and techniques researchers employ to enhance the generalisability and trustworthiness of their findings. We hope as aspiring scholars, or knowledge translators this will give you additional insights into the choices researchers have to make as they move through the research cycle.

Understanding the Lingo

What follows is a brief look at what we mean when we measure and

conceptualise research and what this might look like in practice for communication researchers.

Measurement

In research methods, when we use the term measurement, we mean the process by which we describe and ascribe meaning to the key facts, concepts, or other phenomena that we are investigating. At its core, measurement is about defining one's terms as clearly and precisely as possible. Measurement occurs at all stages of research.

Conceptualisation

We often measure things that are not easy to define. For example, love. What size is love? What does it look like? How can we talk about it? One of the first steps in the measurement process is *conceptualisation*. Conceptualisation involves writing out clear and concise definitions for our key concepts. Conceptualisation starts with brainstorming and playing around with possible definitions. Then, it's a good idea to familiarise yourself with research on the topic, to see how scholars and academics define the concept of interest. Understanding prior definitions of our key concepts will also help us decide whether we plan to challenge those conceptualisations or rely on them for our work. After brainstorming and reviewing the literature, you might develop your own revised definition.

Operationalisation

Having honed in on the definitions and concepts that drive our research, the next step involves translating these ideas into measurable terms. This process, known as operationalization, is the linchpin that bridges the gap between abstract notions and concrete data collection. It entails outlining the precise methodologies employed to quantify and gather information about the concepts under scrutiny.

At the heart of operationalisation lies the selection of indicators, which serve as empirical markers reflecting the essence of what we seek to investigate.

Drawing from theoretical frameworks and existing empirical studies is a prudent approach to identifying suitable indicators. It may involve leveraging the same indicators used by other researchers or enhancing and refining indicators based on perceived weaknesses in previous work.

The journey from concept identification to operationalisation mirrors a conceptual funnel, characterised by a gradual increase in specificity. Starting with a broad area of interest, researchers proceed to construct a more refined conceptual meaning—providing a sharper definition. Operationalisation then kicks in, enabling the establishment of precise measurement procedures and indicators, akin to navigational tools guiding the research process.

As the focus narrows through this funnel-like progression, a hypothesis takes shape, providing a coherent structure to the research endeavour. This well-defined hypothesis hinges upon the operationalised variables, encapsulating the essence of the concepts in quantifiable terms.

Operationalisation, therefore, acts as the pivotal link transforming abstract concepts into measurable elements that fuel empirical investigations.

Let's explore a quantitative research journey within the field of

communications, focusing on the influence of television advertising on consumer behaviour.

Beginning with a broad interest, the researcher sets out to understand how television advertising impacts consumer purchase intentions. This general curiosity forms the foundation of the study. However, as the research process unfolds, the focus gradually sharpens, honing in on a specific aspect—the role of emotional appeals within television advertisements and its connection to consumer purchase intentions or: "How does the role of emotional appeals in television advertisements influence consumer behaviour, particularly their purchase intentions?" This refined focus becomes the conceptual meaning of the study, underscoring the importance of emotional content in shaping consumer behaviour.

To translate this conceptual meaning into measurable terms, the operationalisation stage comes into play. First, the researcher defines how emotional appeals will be quantified. This involves analysing television advertisements to identify emotional triggers, such as happiness, fear, or nostalgia. The researcher assigns scores to these emotional appeals based on their intensity. Similarly, the operationalisation extends to assessing consumer purchase intentions, where participants share their likelihood of buying the advertised product. A scale ranging from "very unlikely" to "very likely" serves as a tool to gauge these intentions. Additionally, the study explores mediating factors by capturing participants' self-reported emotional responses while watching the advertisements. A self-assessment survey administered during viewing captures these responses.

Building on this operational groundwork, the research hypotheses emerge, providing clear predictions for the study's outcomes. The first hypothesis posits that television advertisements with strong emotional appeal will positively influence consumer purchase intentions. The second hypothesis suggests that emotional responses experienced while viewing the advertisements mediate, shaping the relationship between emotional appeals and consumer purchase intentions.

Throughout this process, the researcher navigates a conceptual funnel—a pathway from broad inquiry to precise investigation. The initial curiosity about television advertising's impact gradually converges into a targeted exploration of emotional appeals and their significance in shaping consumer behaviour. The systematic operationalisation of concepts using quantitative methods and indicators leads to formulating research hypotheses, enabling the researcher to dissect the intricate interplay between communication through advertisements and consumer intentions.

Let's delve into a qualitative research journey in the realm of communications, focusing on understanding how individuals interpret and respond to political discourse on social media. Starting with a broad interest, the researcher sets out to explore the dynamics of political communication in the digital age. This general curiosity forms the initial point of inquiry. However, as the research process unfolds, the focus gradually narrows, zeroing in on a specific aspect—the diverse ways in which individuals make sense of and engage with political content on social media platforms. This refined focus becomes the conceptual meaning of the study, highlighting the complexities and nuances of interpreting and responding to political discourse within digital spaces. To capture the richness of individual experiences, the operationalisation stage comes into play. The researcher outlines qualitative methods to gather in-depth insights. The study involves conducting interviews with participants who actively engage with political content on social media. Through open-ended questions, participants share their perceptions, emotions, and motivations when encountering political messages. The operationalisation extends to examining visual cues and textual elements in political posts. By delving into the participants' interpretations and emotional reactions, the study aims to uncover the underlying factors that shape their engagement with political discourse. Building upon this operational groundwork, the research questions emerge as the research progresses not at the start and would include:

- How do individuals make sense of political content with diverse viewpoints on social media platforms?
- In what ways do emotional responses influence the engagement of individuals with political messages on social media?
- How do personal experiences intersect with the political engagement of individuals in the digital realm?

These research questions drive the exploration of the complex relationships between communication, interpretation, emotional responses, and personal context in the context of political discourse on social media. By delving into participants' perceptions, emotions, motivations, and interactions with political content, the study aims to shed light on the multifaceted dynamics that shape individuals' engagement with political discourse within digital spaces.

Throughout this process, the researcher navigates a conceptual funnel—a pathway from general interest to targeted investigation. The initial curiosity about political communication in digital spaces gradually evolves into a specific exploration of how individuals navigate, interpret, and emotionally respond to political content on social media platforms.

Exploring Reliability and Validity in Quantitative Research: Ensuring Sound Measurement

In quantitative research, the examination of measurement goes deeper than just surface evaluations. Reliability and validity, both essential aspects, work in tandem to ensure the strength and precision of measurement methods.

Reliability: Ensuring Consistency and

Dependability

Reliability examines the consistency and dependability of a measurement technique when replicated. It seeks to ascertain whether applying the same measurement method to different instances yields consistent results. This consistency is pivotal in affirming the reliability and trustworthiness of the measurement. For instance, when gauging a complex concept like alcoholism, the choice of measurement questions can greatly impact reliability. Employing an inquiry such as "Have you ever had a problem with alcohol abuse?" may yield responses that lack reliability and dependability. Diverse interpretations of what constitutes a "problem" with alcohol and reluctance to label oneself as having a drinking problem contribute to this unreliability. Conversely, utilising a question like "How many drinks have you consumed in the last week?" offers a more reliable measurement. The numerical response presents a quantifiable and consistent metric, enhancing the dependability of the measurement process.

Validity: Ensuring Meaningful Measurement

Validity delves into the fundamental question of whether a measurement technique effectively captures what it intends to measure. It assesses whether the measurement accurately represents the concept it aims to quantify.

Continuing with the example of alcoholism, the validity of the measurement can come into question when examining individuals' perceptions of having a drinking problem. The variability in how people define a "drinking problem" introduces uncertainty in the validity of responses. One individual might consider consuming five or more drinks per week as indicative of a drinking problem, while
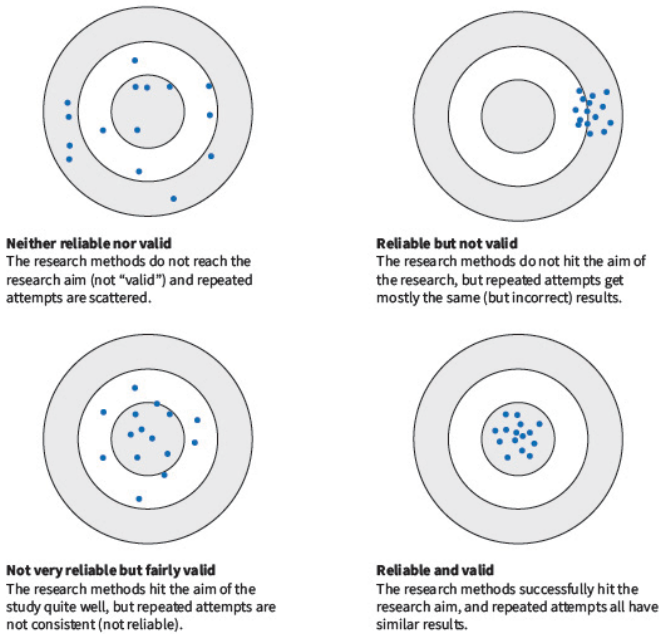
another might reserve the "drinking problem" label for situations involving severe life consequences.

Reliability and validity are intertwined, each contributing to the overall quality of measurement in distinct ways. A reliable measurement technique yields consistent results upon replication, while a valid measurement technique accurately captures the concept under scrutiny. Researchers navigate these dimensions carefully, selecting measurement methods that provide reliable outcomes and accurately represent the constructs being studied.

The relationship between reliability and validity is outlined in the figure below.

Figure 4.1

Reliability and Validity

Neither reliable nor valid
The research methods do not reach the research aim (not "valid") and repeated attempts are scattered.

Reliable but not valid
The research methods do not hit the aim of the research, but repeated attempts get mostly the same (but incorrect) results.

Not very reliable but fairly valid
The research methods hit the aim of the study quite well, but repeated attempts are not consistent (not reliable).

Reliable and valid
The research methods successfully hit the research aim, and repeated attempts all have similar results.

Trustworthiness in Qualitative Research

In qualitative research, the concepts of validity and reliability are approached differently than in quantitative research. While the traditional definitions of validity (accuracy) and reliability (consistency) still apply, their interpretation and assurance take on distinct characteristics due to the nature of qualitative inquiry.

Validity in Qualitative Research

- **Triangulation:** Qualitative researchers often use multiple sources of data, methods, and perspectives to cross-verify their findings. This is known as triangulation. By comparing different data sources or involving different researchers, the validity of the findings is strengthened.
- **Member Checking:** Researchers involve participants in the research process to validate interpretations and findings. Participants review and confirm the researcher's understanding of their experiences, ensuring the analysis resonates with their perspectives.
- **Rich Description:** Thoroughly documenting the research process, context, and findings helps ensure that others can follow the logic and understand the context, which enhances the validity of the study.
- **Reflexivity:** Researchers acknowledge and address their biases, assumptions, and subjectivity in the research process. Reflexivity demonstrates awareness of potential influences on the study's outcomes.

Reliability in Qualitative Research

- **Consistency in Data Collection:** Researchers maintain consistency in data collection methods, such as interview protocols or observation techniques, to ensure that the same processes are applied across participants or settings.
- **Inter-Coder Agreement:** If multiple researchers are involved in coding and analysing data, establishing a high level of agreement between them through inter-coder reliability checks helps enhance the reliability of the coding process.
- **Audit Trails:** Maintaining detailed records of decisions made during the research process, such as coding choices or analytical decisions, allows for transparency and helps ensure the consistency of the analysis.
- **Peer Debriefing:** Researchers discuss their findings and interpretations with peers or experts in the field to receive feedback and challenge their assumptions, which can help improve the reliability of the study.

It's important to note that qualitative researchers do not seek the same type of rigid validity and reliability as quantitative researchers, the emphasis shifts from the traditional notions of reliability and validity to a nuanced evaluation of measurement techniques through the lens of trustworthiness. *Trustworthiness* encapsulates several key dimensions, each contributing to the overall robustness and authenticity of qualitative findings. These dimensions include *credibility*, **transferability**, *dependability*, and *confirmability.*

- **Credibility:** This dimension delves into the authenticity and depth of understanding achieved in exploring the phenomena of interest. Qualitative researchers strive to establish credibility by immersing themselves in the participant's perspective and context. By closely engaging with participants, understanding their experiences, and portraying these experiences accurately, researchers enhance the credibility of

their findings. For instance, in a study exploring the impact of mentoring on career development, researchers might use participant narratives to capture the lived experiences and viewpoints, thereby increasing the credibility of their qualitative data.

- **Transferability:** Transferability focuses on the extent to which research outcomes can be extended beyond the specific context in which the study was conducted. Qualitative researchers recognize that while their findings may be contextually rich, they also seek to identify patterns and insights that have potential applicability in diverse settings. For example, a qualitative study investigating coping strategies among cancer survivors could elucidate principles and perspectives that resonate with individuals facing other chronic illnesses, thus enhancing the transferability of the research.

- **Dependability:** Dependability pertains to the stability and consistency of findings over time, considering the dynamic and evolving nature of the research environment. Researchers aim to demonstrate dependability by meticulously documenting the research process, decisions, and any alterations made during the study. This transparency allows for a comprehensive understanding of how the study unfolded and how potential changes may have influenced the results. In a longitudinal qualitative study tracking the effects of community intervention, consistent documentation of changing social dynamics and external influences over time contributes to the dependability of the research.

- **Confirmability:** Confirmability concerns the extent to which the study findings accurately reflect the researched phenomena rather than being influenced by the researcher's perspectives or biases. Qualitative researchers engage in reflexive practices, acknowledging their subjectivity and taking steps to minimise undue influence on the research process and interpretation of data. To enhance confirmability, a

researcher exploring attitudes toward sustainable lifestyles might document their reflective process to ensure that their personal views do not overshadow or distort the participants' viewpoints.

By addressing these dimensions of trustworthiness, qualitative researchers fortify the credibility, applicability, consistency, and objectivity of their research findings. This holistic approach ensures that the qualitative research contributes robust and authentic insights to the broader understanding of complex social phenomena.

Reflection Question

Reflect on the process of operationalization as discussed in the chapter. How does the metaphor of a "conceptual funnel" help in understanding the transformation of abstract concepts into measurable variables? Can you think of a specific example from your own experience or interest where you might apply this funnel approach to operationalize a concept? How would you ensure reliability and validity in your measurement? Document your thoughts in a 200–300-word post.

Key Chapter Takeaways

- Conceptualisation is a critical step in research where we develop precise and succinct definitions for the ideas we're exploring. This helps us understand and communicate these concepts effectively.
- Operationalisation is the detailed process of explaining how we will measure a concept. It involves laying out specific methods

and procedures to turn abstract notions into quantifiable terms.

- In the measurement process, we typically start with a broad focus and then narrow down our approach to gather data. However, it's important to note that this progression may vary across different research projects.
- Reliability and validity are of paramount importance to quantitative researchers because they serve as key pillars in establishing the credibility and integrity of their research findings.
- Qualitative researchers don't aim for the strict validity and reliability that quantitative researchers do. Instead, the focus moves away from conventional ideas of reliability and validity, shifting towards a more intricate assessment of measurement methods from the perspective of trustworthiness which includes transferability, dependability, and confirmability.

Key Terms

Measurement: Measurement is the way we describe and give meaning to important facts, ideas, or things we're studying. Conceptualisation: Conceptualisation means coming up with clear and simple definitions for the main ideas we are working with, so we can understand them better.

Operationalisation: Operationalisation is about carefully spelling out exactly how we will measure an idea. It's like turning vague thoughts into specific, measurable terms.

Indicators: Indicators are real things we can observe that represent what we're studying. They give us a concrete way to understand our concepts.

Conceptual funnel: You start with a big interest and then zoom in step by step as you go from just being curious to making specific ways to measure things.

Reliability: An essential consideration in evaluating the effectiveness of measurement techniques within quantitative research. Reliability examines whether repeating the measurement procedure produces consistent results and establishes a dependable and consistent outcome.

Validity: A critical factor in appraising the quality of measurement techniques in quantitative research. Validity assesses whether the measurement accurately captures the intended concept or phenomenon, ensuring its alignment with the expected outcome.

Trustworthiness: In qualitative research, trustworthiness is the extent to which the findings, interpretations, and conclusions of a study are credible, dependable, and valid. It encompasses the efforts and strategies employed by researchers to establish the reliability, authenticity, and overall integrity of their research process and outcomes. Trustworthiness ensures that the research accurately represents the perspectives, experiences, and meanings of participants, while also demonstrating the researcher's commitment to rigorous and transparent methods. It involves various techniques, such as triangulation, member checking, peer debriefing, and maintaining an audit trail, to enhance confidence in the research's accuracy and the researcher's ability to faithfully capture the complexity of the studied phenomenon.

Credibility: A key aspect when evaluating measurement techniques in qualitative research. Credibility aims to represent or comprehend the phenomena of interest from the perspective of the participants, enhancing the trustworthiness of the research findings.

Transferability: A significant consideration in evaluating measurement techniques in qualitative research. Transferability gauges the extent to which the outcomes of qualitative research can be applied or extended to different contexts or settings, contributing to broader applicability.

Dependability: A fundamental element in assessing measurement techniques in qualitative research. Dependability acknowledges the

researcher's responsibility to accommodate the evolving research context, ensuring consistent and reliable outcomes over time.

Confirmability: A crucial dimension in evaluating measurement techniques in qualitative research. Confirmability measures the extent to which the research study faithfully represents the actual circumstances under investigation, minimising potential biases from the researcher's viewpoint.

Further Reading and Resources

Drmrussell. (2010, August 9). Fun with operational definitions [Video]. YouTube. https://www.youtube.com/watch?v=37dLMgWPAtM

5. Research Ethics

Learning Objectives for Chapter

• Identify and explain the problematic research practices and projects that have given rise to the research ethics codes and research ethics governance present today.

   • Recognize the main principles governing ethical research in Canada.

Introduction

Researchers in Canada play a big role in discovering new things and helping society. However, with this important role comes a responsibility to do things in a fair and good way. This responsibility is called research ethics, and it is like a guidebook that helps researchers make good choices.

Research ethics is not just a bunch of rules—it's like a moral compass that helps researchers do their work respectfully and honestly. In Canada, like in other places, research ethics is becoming more important because people realise that doing research involves treating people well and being honest.

In this chapter, we will explore why research ethics is really important for researchers in Canada and why ethics needed to be codified due to past historical abuses. We will learn how research ethics helps to protect the rights of the people who participate in research and how it builds trust.

Media professionals must understand research ethics because they play a crucial role in sharing information with the public. Just like researchers, journalists and broadcasters have a responsibility to report accurately and ethically.

Research on Humans: A Brief History

Research on humans hasn't always been regulated in the way that it is today.

The earliest documented cases of research using human subjects are of medical vaccination trials (Rothman, 1987). One such case took place in the late 1700s, when scientist Edward Jenner exposed an 8-year-old boy to smallpox to identify a vaccine for the devastating disease. Medical research on human subjects continued without much law or policy intervention until the mid-1900s when,

at the end of World War II, several Nazi doctors and scientists were put on trial for conducting human experimentation during which they tortured and murdered many concentration camp inmates (Faden & Beauchamp, 1986). The trials, conducted in Nuremberg, Germany, resulted in the creation of the Nuremberg Code, a 10-point set of research principles designed to guide doctors and scientists who conduct research on human subjects.

Today, the Nuremberg Code guides medical and other research conducted on human subjects, including social scientific research. Medical scientists are not the only researchers who have conducted questionable research on humans. In the 1960s, psychologist Stanley Milgram (1974) conducted a series of experiments designed to understand obedience to authority where he tricked subjects into believing they were administering an electric shock to other subjects. The shocks were not real at all, but some, though not many, of Milgram's research participants experienced extreme emotional distress after the experiment (Ogden, 2008). A reaction of emotional distress is understandable. The realisation that one is willing to administer painful shocks to another human being just because someone who looks authoritative has told you to do so might indeed be traumatic— even if you later learn that the shocks weren't real.

Around the same time that Milgram conducted his experiments, graduate student Laud Humphreys (1970) was collecting data for his dissertation research on the tearoom trade, the practice of men engaging in anonymous sexual encounters in public restrooms. Humphreys wished to understand who these men were and why they participated in the trade. To conduct his research, Humphreys offered to serve as a "watch queen," the person who keeps an eye out for police and gets the benefit of being able to watch the sexual encounters, in a local park restroom where the tearoom trade was known to occur. What Humphreys did not do was identify himself as a researcher to his research subjects. Instead, he watched his subjects for several months, getting to know several of them, learning more about the tearoom trade practice and, without the

knowledge of his research subjects, jotting down their licence plate numbers as they pulled into or out of the parking lot near the restroom. Some time after participating as a watch queen, with the help of several insiders who had access to motor vehicle registration information, Humphreys used those licence plate numbers to obtain his research subjects' names and home addresses. Then, disguised as a public health researcher, Humphreys visited his subjects in their homes and interviewed them about their lives and health. Humphreys' research dispelled many myths and stereotypes about the tearoom trade and its participants. He learned, for example, that over half of his subjects were married to women and many of them did not identify as gay or bisexual.

Once Humphreys' work became public, the result was some major controversy at his home university (e.g., the chancellor tried to have his degree revoked), among academics in general, and among members of the public, as it raised public concerns about the purpose and conduct of public research. In addition, the Washington Post journalist Nicholas von Hoffman wrote the following warning about "sociological snoopers":

> *We're so preoccupied with defending our privacy against insurance investigators, dope sleuths, counterespionage men, divorce detectives and credit checkers, that we overlook the social scientists behind the hunting blinds who're also peeping into what we thought were our most private and secret lives. But they are there, studying us, taking notes, getting to know us, as indifferent as everybody else to the feeling that to be a complete human involves having an aspect of ourselves that's unknown. (von Hoffman, 2008)*

In the original version of his report, Humphreys defended the ethics of his actions. In 2008, years after Humphreys' death, his book was reprinted with the addition of a retrospect on the ethical implications of his work. In his written reflections on his research and its fallout, Humphreys maintained that his tearoom observations constituted ethical research because those

interactions occurred in public places. But Humphreys added that he would conduct the second part of his research differently. Rather than trace licence numbers and interview unwitting tearoom participants in their homes under the guise of public health research, Humphreys instead would spend more time in the field and work to cultivate a pool of informants. Those informants would know that he was a researcher and could fully consent to being interviewed. In the end, Humphreys concluded that "there is no reason to believe that any research subjects have suffered because of my efforts, or that the resultant demystification of impersonal sex has harmed society" (p. 231).

As should be evident by now, there is no clear or easy answer to whether Humphreys conducted ethical research. Today, given increasing regulation of social scientific research, chances are slim that a researcher would be allowed to conduct a project similar to Humphreys'. Some argue that Humphreys' research was deceptive, put his subjects at risk of losing their families and their positions in society, and was therefore unethical (Warwick, 1973; Warwick, 1982). Others suggest that Humphreys' research "did not violate any premise of either beneficence or the sociological interest in social justice" and that the benefits of Humphreys' research, namely the dissolution of myths about the tearoom trade specifically and human sexual practice more generally, outweigh the potential risks associated with the work (Lenza, 2004). What do you think, and why?

This and other studies (Reverby, 2009) led to increasing public awareness of and concern about research on human subjects. In the United States federal guidelines known as the Belmont Report emerged in 1978. This report highlighted the principle of seeking justice, emphasising the need for fair distribution of risks and benefits among different societal groups in research. It played a significant role in shaping ethical research guidelines in both the United States and Canada (Price, Jhangiani, & Chiang, 2015).

In Canada, researchers and institutions follow the code of ethics outlined in the ***Tri-Council Policy Statement: Ethical Conduct for***

***ResearchInvolving Humans* (TCPS 2)**. The term "Tri-Council" refers to the three research agencies funded by the Canadian government: the Social Sciences and Humanities Research Council of Canada (SSHRC), the Canadian Institutes of Health Research (CIHR), and the Natural Sciences and Engineering Research Council of Canada (NSERC). The Tri-Council Policy Statement (TCPS) was first published in 1998, consolidating and replacing previous guidelines from individual agencies and institutions. The 2010 second edition (**TCPS 2**) further refined the principles, updated guidelines, clarified terminology, and defined the roles of institutional research ethics boards (REBs) (Price, Jhangiani, & Chiang, 2015). There was also a clarification in 2018, and one recently in 2022.

These guidelines are built upon the core principles of respect for persons, concern for welfare, and justice. An online tutorial detailing the specific TCPS 2 guidelines is available here, requiring up to four hours for completion. Successful participants receive a certificate, often mandatory for research evaluation by ***research ethics boards* (REBs)** at universities and other institutions (Price, Jhangiani, & Chiang, 2015).

TCPS 2 outlines two levels of research ethics review. Full REB review is typically required for human-involved research, except for cases of minimal risk research where risks mirror everyday experiences. In minimal risk situations, the REB might delegate review to its members. Another exception is student course-based research, where relevant departments or faculties may oversee review (Price, Jhangiani, & Chiang, 2015).

At Mount Royal, the Human Research Ethics Board (HREB) guarantees that all research carried out within the institution prioritises the protection of participants' rights, well-being, and confidentiality, adhering to the guidelines of the Tri-Council Policy Statement. HREB assesses applications submitted by MRU researchers, including research led by undergraduate students under faculty supervision, such as Honours theses and student directed projects. Additionally, HREB evaluates external

applications from MRU researchers collaborating within research teams at other institutions and studies involving MRU participants that have been approved by other Canadian post-secondary institutions.

It may surprise you that REBs are not always popular or appreciated by researchers. Who wouldn't want to conduct ethical research, you ask? In some cases, the concern is that REBs are most well versed in reviewing biomedical and experimental research, neither of which is particularly common within social science research. Much social research, especially qualitative research, is open ended in nature, a fact that can be problematic for REBs. The members of REBs often want to know in advance exactly who will be observed, where, when, and for how long, whether and how they will be approached, exactly what questions they will be asked, and what predictions the researcher has for her or his findings. Providing this level of detail for a yearlong participant observation within an activist group of 200-plus members, for example, would be extraordinarily frustrating for the researcher in the best case and most likely would prove impossible. Of course, REBs do not intend to have researchers avoid studying controversial topics or avoid using certain methodologically sound data collection techniques, but unfortunately, that is sometimes the result. The solution is not to do away with review boards, which serve a necessary and important function, but instead to help educate REBs members about various social scientific research methods and topics covered by social scientists.

Research in Canada: Core Principles

As noted for Canadian researchers, the **_Tri-council Policy Statement(TCPS2)_** has adopted a set of ethical principles intended to guide researchers ethically. The Tri-Council Policy Statement

has three cores, overlapping principles each which will be outlined in more detail below.

- ***Respect for persons.***
- ***Concern for welfare***
- ***Justice***

Respect for Persons

The Respect for Persons principle is about understanding how valuable each person is and treating them with the consideration they deserve. This idea applies not only to those participating in research but also to those who contribute their information or biological materials. This principle has two important parts: making sure people can make their own decisions and protecting those who might have trouble making decisions on their own. Respecting people's ability to make choices and letting them decide without pressure is a big part of this. One crucial thing in research is getting agreement (preferably via written consent) from people to take part, and it has to be their choice, based on good information, and they can change their minds.

Some important points in this principle are letting people have control (autonomy), them choosing to join (voluntary participation), knowing what they're choosing (informed decision-making), and their ability to decide (cognitive capacity). Each of these things shows how important it is to treat people well, let them make choices, and make sure their rights and well-being are protected while doing research.

When obtaining consent, researchers are expected to provide clear and comprehensive information to participants, allowing them to fully understand the research and its implications. Consent forms should enable participants to make an informed choice about

whether to participate and to have the freedom to withdraw from the study at any time.

Concern for Well-being

A person's well-being is about how good their life is overall, including their physical, mental, and spiritual health, as well as their living conditions, work, and social situation. Things like where they live, their job, their safety, their family, and how their involvement in the community can all affect their well-being. Two important things that affect well-being are keeping personal information private and controlling who knows about them. When people agree to be in research, they should be told about these things and agree to them. Research can also affect groups of people. It's important to talk to groups that might be affected (like if they might be treated unfairly or their reputation might be hurt) to understand how research could affect them and figure out how to ensure bad effects are as small as possible.

Here are some key points about well-being in research:

- The risks should not be more than the benefits.
- There should not be any unnecessary risks.
- We need to think about how being in research could affect the person and their community.

Researchers are responsible for ensuring that participants' personal data, responses, and identities are kept confidential and secure. Anonymity and confidentiality help to prevent the disclosure of sensitive information and maintain the trust between researchers and participants. Researchers must take appropriate measures to safeguard participant data, both during and after the research to uphold this principle and respect participants' rights to privacy.

When describing data collection and data management

procedures for research involving human participants, you will inevitably need to address anonymity and confidentiality. However, many novice researchers struggle to differentiate anonymity and confidentiality properly and often use these terms interchangeably. So, what exactly is the difference between the two?

Anonymity is when nobody, not even the researcher, can figure out who the participants in the study are. This happens by not gathering any personal information that could show who they are. This personal information includes names, addresses, email addresses, phone numbers, government ID numbers (like social insurance numbers), pictures, and computer IP addresses (Statistics Solutions, 2023). Survey research can generally preserve anonymity (Statistics Solutions, 2023). However, it can't be anonymous if a study happens in person or over the phone. This means most qualitative research with interviews (individual or in groups) can not be anonymous as the researcher generally knows who they are talking to (Statistics Solutions, 2023).

Confidentiality ensures that the researcher possesses knowledge of a research subject's identity while taking steps to prevent others from discovering this identity (Evergreen, 2023). In most instances of human subject's research, researchers gather signed consent agreements and personally identifiable data, granting them awareness of their subjects' identities; in such cases, upholding confidentiality becomes crucial to safeguard private information (Evergreen, 2023).

To preserve confidentiality, researchers employ various strategies. They can prioritise secure record-keeping by utilising password-protected files, encrypting data during online transmission, and implementing physical security measures like locked doors and drawers (Evergreen, 2023). They can also adopt methods that unlink subject responses from identifying details, often using a unique code only known to them (Evergreen, 2023). Since subjects may be distinguishable by factors beyond names, researchers frequently present collective findings rather than individual-level data to the public (Evergreen, 2023).

This becomes even more confusing in the context of journalistic and broadcasting policies. In a media context, "anonymity" refers to not revealing the identity of a source or a person providing information for a news story. When a source's identity is kept anonymous, their name and other identifying details are not disclosed in the published article or report. This is often done to protect the source from potential negative consequences, such as retaliation or harm, which could arise from sharing sensitive or controversial information. Anonymity allows journalists to gather and report important information while safeguarding the privacy and safety of their sources. Ethical considerations in journalism dictate that anonymous sources should be used sparingly and when there is a compelling reason to do so, and the decision to grant anonymity should be carefully weighed against the public's right to know and the credibility of the information being reported (ONAethics, 2021).

In sum, maintaining confidentiality is how researchers might describe what newspapers do when they do not reveal a source's information, though a journalist might label this source as anonymous.

Justice

The principle of justice is all about treating people fairly and equally. Fairness means treating everyone with the same respect and care. Equality means ensuring that the good things and hard things from research are shared out in a way that doesn't put too much pressure on one group of people or keep them from getting the good things we learn. Treating everyone equally doesn't always mean treating them exactly the same way. One big thing to think about when being fair and equal is vulnerability. Vulnerability can happen when someone cannot make choices easily or when they don't have as much access to important things like rights, chances, or power. Both

individuals and groups can be vulnerable, and they need special care to make sure they are treated fairly in research. Being fair and equal is crucial when finding people to join a study. The eligibility criteria for participation should be reasonable, fair, and relevant to the study's goals, without unfairly excluding certain groups or introducing unnecessary barriers.

In other words, the rules for who can join the study should be based on factors that are directly related to the research question and objectives, and not unnecessarily exclude certain groups or make it harder for them to participate.

The policy also wants to balance between getting good things from research and keeping people safe. This is why Research Ethics Boards make sure to check research projects and see how risky they are for the people taking part.

In Canada, providing research participants an honorarium may violate the ethical principle of "Justice." This principle emphasises fair treatment and equal distribution of benefits and burdens among participants. Offering an honorarium to some participants but not others could create an imbalance and potentially lead to unequal treatment. Researchers must ensure that the distribution of benefits, such as honorariums, is done fairly and does not favour certain groups or individuals, maintaining the principles of equity and justice in research.

In summary, justice in research encompasses treating everyone fairly, sharing risks and benefits equally, protecting vulnerable individuals, making fair participant selections, and maintaining a balance of power. These key points underscore the importance of upholding ethical standards that prioritise equality and fairness throughout the research journey.

These three core principles allow researchers to achieve their goals while protecting participants from harm and ensuring the benefits of said research will equitably benefit participants. In practice, the Research Ethics Board Review plays a key role in evaluating each research study to ensure respect for persons, concern for welfare, and justice are all addressed to protect

participants from harm. As you might have already assumed, this process can be complex due to the unique nature of research studies covering new ground in any field of study, meaning precedents can exist, but research will always need ethical evaluation.

Indigenous Research and the TCPS

Traditionally, research involving Indigenous peoples in Canada has been shaped and conducted primarily by non-Indigenous researchers. Unfortunately, these approaches have often not aligned with Indigenous worldviews, resulting in research outcomes that may not adequately serve or empower Indigenous peoples or their communities. Consequently, there persists a degree of caution or scepticism among Indigenous communities, especially towards research originating externally.

Chapter 9 of TCPS2 focuses on conducting research involving the Indigenous peoples of Canada, including First Nations, Inuit, and Métis communities. It recognises that Indigenous communities within Canada possess distinct histories, cultures, and traditions while also embracing key values like reciprocity—where the act of giving back is fundamental to nurturing relationships that can be mutually beneficial.

The chapter notes that its purpose is as follows:

> Serve as a framework for the ethical conduct of research involving Indigenous peoples. It is offered in a spirit of respect. It is not intended to override or replace ethical guidance offered by Indigenous peoples themselves. Its purpose is to ensure, to the extent possible, that research involving Indigenous peoples is premised on respectful relationships. It also encourages collaboration and engagement between researchers and participants. (TCPS 2, 2022, Chapter 9, para.5)

Some key highlights include:

- Respect for Persons extends its scope to encompass the intricate connection between humans and the natural world. This expansion involves upholding and passing down ancestral knowledge and present-day innovations to future generations.
- Concern for Welfare broadens the research objective to enhance individual well-being and empower First Nations, Inuit, or Métis peoples to preserve their cultures, languages, and identities. In these contexts, collective welfare gains prominence alongside individual welfare, underlining the importance of community well-being.
- Addressing Justice acknowledges that significant social, cultural, or linguistic gaps between the community and external researchers may exist. Establishing engagement between the community and researchers prior to participant recruitment and throughout the research process can foster mutual trust, effective communication, and the identification of mutually beneficial goals.

Why media professionals should be concerned with ethics.

Media professionals need to understand research ethics because they are vital in disseminating information to the public. Just like researchers, media professionals are responsible for accurate and ethical reporting. This underscores the significance of comprehending research ethics in their line of work. Firstly, research ethics ensure the authenticity and veracity of information. Media professionals well-versed in research ethics are better equipped to authenticate facts, utilise credible sources, and present precise details to their audience. This foundation of accuracy builds trust and credibility, preventing sensationalism, bias, and

misrepresentation that could tarnish the reputation of both the journalists and their media organisations.

Additionally, research ethics safeguard the confidentiality of sources. By respecting these principles, media professionals foster an environment where sources can share critical information without fear of backlash or harm. Similar to researchers, media professionals must consider potential harm to subjects when crafting stories, avoiding distress to individuals or communities.

Ethical research practices also foster balanced and unbiased reporting. Media professionals who apply these principles seek diverse viewpoints, avoid selective presentation of facts, and offer a comprehensive outlook on the subjects they cover. Transparency and accountability, inherent in research ethics, are equally crucial in the media. Disclosing conflicts of interest and sources of funding ensures accountability to the audience, providing a complete context for the news reported.

Moreover, understanding research ethics aligns with the social responsibility of journalism, contributing positively to society's informed discourse. By embracing these principles, media professionals uphold their role responsibly, promote fair and accurate reporting, and acknowledge the public's right to truthful information.

Research ethics also guide media professionals in avoiding plagiarism by emphasising proper citation and attribution. This practice demonstrates respect for the original information creators and maintains the integrity of reporting.

Research ethics offer a framework for ethical decision-making in navigating complex and sensitive issues. Media professionals acquainted with these guidelines approach contentious topics with sensitivity, respect, and ethical considerations.

In the rapidly evolving media landscape, where technology plays a pivotal role, understanding research ethics becomes even more vital. It equips media professionals to navigate digital platforms, social media, and emerging technologies while upholding ethical standards.

In conclusion, research ethics form a solid foundation for responsible and ethical journalism. Media professionals who embrace these principles contribute to a well-informed and ethically driven media environment, fostering trust, credibility, and ensuring the public's right to accurate and reliable information.

The CAJ website is a great place to start exploring ethics for media professionals in Canada. They note:

> The CAJ's widely cited Ethics Guidelines are intended to help seasoned professionals and new journalists hold themselves accountable for professional work. While many specific questions are considered here, capturing all potential scenarios in a document such as this is impossible. Instead, it seeks to provide examples of the application of our general ethical principles, and to help journalists apply those principles and their best judgement when faced with scenarios not covered here. (CAJ, 2023)

We recommend you take a look at what these guidelines explore and consider how and why media professionals might treat ethical issues differently than researchers, if at all.

Reflection Question

Reflect on the challenges faced by media professionals in upholding research ethics in their reporting. How might the application of research ethics differ or align between journalistic practices and academic research? Document your thoughts in a 200–300-word post.

Key Chapter Takeaways

- Social scientists have violated ethics protocols in the past

necessitating formalised codes and institutional research
ethics boards (REBs).

- The Tri-Council Policy Statement (TCPS) has developed a Code
  of Ethics to which Canadian researchers are expected to
  adhere.
- The three basic principles of the TCPS are: respect for people,
  concern for welfare and justice.
- Anonymity and confidentiality may mean different things to
  researchers and media professionals.
- The TCPS has had to be expanded when researching First
  Nations, Inuit, and Métis Peoples of Canada.
- Ethics matters to media professionals just like it does to
  researchers.

Key Terms

The Nuremberg Code: A set ethical principles and guidelines that
were established in 1947 as a result of the Nuremberg Trials, which
were a series of military tribunals held to prosecute prominent
Nazi leaders and doctors for their heinous medical experiments
conducted on prisoners during World War II. The Nuremberg Code
serves as a foundational document in research ethics and outlines
principles for conducting medical and scientific experiments on
human subjects.

Institutional Research Ethics Boards: REBs Ensures the rights
and welfare of human research subjects.

**The Tri-Council Policy Statement for Ethical Conduct for
Research Involving Humans (TCPS):** A comprehensive set of
guidelines and ethical principles established in Canada to guide
research involving human participants. It provides a framework for
researchers, institutions, and research ethics boards to ensure that
research is conducted ethically and responsibly, respecting the
rights, well-being, and autonomy of individuals and communities.

The TCPS covers various topics, including informed consent, privacy, confidentiality, research with vulnerable populations, Indigenous research, and more. It aims to promote ethical research practices, protect participants, and uphold the integrity of research endeavours across various disciplines and contexts.

Respect for Persons: A TCPS core principle that upholds the dignity and autonomy of individuals by recognizing their right to make informed decisions and protecting those with limited autonomy. Fully informed consent is fundamental.

Concern for Welfare: A TCPS core principle that ensures the well being of participants and communities, balancing risks, and benefits to minimise harm and promote positive outcomes.

Anonymity: No one, including the researcher, has the ability to recognize the participants involved in the study individually.

Confidentiality: Refers to the ethical principle and practice of protecting the privacy and identity of research participants. It ensures that any personally identifiable information collected from participants, such as their names, contact details, or other sensitive data, remains secure and inaccessible to unauthorised individuals.

Justice: A TCPS core principle that ensures fair treatment, distribution of benefits, and protection of vulnerable groups, addressing power imbalances and promoting equitable research practices.

Further Reading and Resources

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6. Sampling

Learning Objectives for Chapter

- Differentiate between populations and samples.
- Define non-probability sampling.
- Identify instances in which a researcher might choose a non-probability sampling technique.
- Evaluate different types of non-probability samples.
- Differentiate between probability sampling and non-

probability sampling.
- Define generalisability and describe how it is achieved in probability samples.
- Describe the various types of probability samples available.
- Identify questions to ask about samples when reading the results of research.

Introduction

Sampling is a fundamental aspect of research that involves selecting a subset of individuals or elements from a larger population to study. It provides researchers with valuable insights into the characteristics and behaviours of a population without having to examine every single member. In sampling, two main approaches emerge: non-probability sampling and probability sampling. Each approach has its strengths and limitations, offering researchers a range of method options based on their research goals, resources, and the level of representativeness they seek.

This chapter delves into the world of sampling techniques, exploring the distinctions between non-probability and probability methods. We will uncover the underlying principles of each technique, discuss scenarios in which they might be employed within the realm of communication studies and highlight the considerations researchers must keep in mind when selecting an appropriate sampling strategy.

Moreover, we will provide a set of key questions to ask when evaluating a sample within research studies. We hope that by understanding the nuances of sampling techniques and learning how to analyse the representativeness and potential biases of a sample, you will be better equipped to navigate the complex landscape of research literature and draw well-informed conclusions.

The Difference Between Population and Sample

A population describes the cluster of events, things, people, or other phenomena a researcher is interested in. Populations look at the 'who' or 'what' in question. They can be as broad as 'Americans' but will likely be a little more specific –perhaps the population of interest is Americans over 18, for example. Because it would be impossible to interview every Canadian over at the age of 18, a researcher would gather a sample. A sample is the cluster of people or events from or about which you will gather data. In this case, a sample might be 300 individuals who live in Canada and are 18 and older.

Sampling is the process of selecting observations that will be analysed for research purposes. A researcher will choose a method of sampling to either: a) make sweeping conclusions about the population of interest, with a fair amount of confidence, or b) make theoretical contributions about the larger population.

Because the goals of qualitative and quantitative researchers differ (due to their epistemological and ontological commitments as we explored in Chapter 2), so too do their sampling methods.

Sampling in Qualitative Research

Qualitative researchers typically make sampling choices that enable them to deepen understanding of whatever phenomenon it is that they are studying. In this section we'll examine the strategies as well as the various types of samples that qualitative researchers are most likely to use in their work.

Non-Probability Sampling

Non-probability sampling refers to sampling techniques for which a person's (or event's or researcher's focus) likelihood of being selected for membership in the sample is unknown.

Because we do not know the likelihood of selection, we do not know with non-probability samples whether a sample represents a larger population or not. However, the goal of non-probability samples is not to represent the larger population.

So, when are non-probability samples ideal? A non-probability sample might be used when designing a research project. If we are conducting survey research, we may want to administer our survey to a few people who seem to resemble the folks we are interested in studying in order to help work out kinks in the survey. This can be a quick way to gather some initial data before diving into a more extensive study.

Researchers also use non-probability samples in full-blown research projects. These projects are usually qualitative in nature, where the researcher is trying to achieve in-depth, rather than general understanding. Evaluation researchers whose aim is to describe some particular small group might use non-probability sampling techniques, for example. Researchers interested in contributing to our theoretical understanding of some phenomenon by contributing to social theories – expanding on them, modifying them, or poking holes in their propositions, might also collect data from non-probability samples.

Types of Non-Probability Samples

There are several types of non-probability samples that researchers use. These include purposive samples, snowball samples, quota samples, and convenience samples. While some of these strategies

may be used by quantitative researchers from time to time, they are more typically employed in qualitative research.

A *purposive sample* is when a researcher begins with very specific perspectives he wishes to examine, and then seeks out research participants who cover that range of perspectives.

In a communication studies research project, a researcher might use purposive sampling to study the social media behaviours of influential celebrities. They could specifically select participants who have a significant following on platforms like Instagram and Twitter, focusing on individuals known for promoting social or political causes. By targeting this specific group, the researcher aims to gain insights into how these celebrities use their online presence to communicate messages and engage with their followers, contributing to a deeper understanding of the role of social media in influencing public opinion and social change.

Snowball sampling is a research method used in qualitative studies where initial participants, often known to the researcher, are chosen purposively. These participants then assist in identifying and recruiting additional participants for the study. As the research progresses, the sample "snowballs" as each newly recruited participant suggests or introduces the researcher to others who fit the study's criteria. This approach is particularly useful when studying hard-to-reach, stigmatised, or tightly knit groups, as it leverages existing connections to access and expand the participant pool.

In a communication research study, let's say a researcher is interested in exploring the communication patterns within a tight-knit online gaming community. Due to the specialised nature of this group and the challenge of accessing its members, the researcher starts by interviewing a couple of active participants they know are involved. These initial interviewees then introduce the researcher to other members of the community who might be willing to participate in the study.

For instance, the researcher interviews Player A, who is well-known in the gaming community. During the interview, Player A

mentions Player B and Player C as active and influential members of the same community. With Player A's endorsement, the researcher also contacts Player B and Player C for interviews. As the study progresses, Player B and Player C suggest additional participants, and the process continues, gradually expanding the sample through referrals from existing participants.

This snowball sampling approach allows the researcher to gain access to a group that might be challenging to reach through traditional methods. It also builds a sense of trust and rapport among participants, as they are connected through shared affiliations and can vouch for the researcher's intentions and credibility within the community.

This method is also known as chain referral sampling, one research participant refers another, and that person refers another, and that person refers another—thus, a chain of potential participants is identified.

Quota sampling is another non-probability method. Unlike the other methods, quota sampling is employed by quantitative researchers as well as qualitative. In a quota sample, a researcher identifies subgroups within a population of interest and then selects some predetermined number of elements from within each subgroup.

In a communication research study focusing on consumer preferences for television content, a researcher might use a quota sampling method to ensure a diverse range of participants based on specific demographic characteristics. The goal is to capture a representative sample that reflects the population's diversity while maintaining control over specific demographic proportions. For example, the researcher aims to interview 100 participants from different age groups (18-24, 25-40, 41-60, 61+), gender identities, and income levels. Within each age group, the researcher sets a quota for gender and income distribution. They start by selecting participants who fit the criteria of the first age group, ensuring a mix of gender identities and income levels. Once the quota for that

group is met, the researcher moves on to the next age group and repeat the process.

By using a quota sample, the researcher ensures a balanced representation of participants across age, gender, and income categories, while still maintaining a manageable sample size. This approach helps gather insights into how different demographic groups perceive and engage with television content, enhancing the study's validity and applicability.

Convenience sampling, also known as haphazard sampling, is a method used by both quantitative and qualitative researchers. It involves collecting data from individuals or elements that are readily accessible to the researcher. This approach is particularly useful in exploratory research and is often employed by media professionals who need quick access to individuals from their population of interest. For instance, brief street interviews featured on the news are a common example of haphazard sampling.

In a communication study investigating young adults' experiences with social media and mental health, a researcher might employ convenience sampling by recruiting participants from their university campus. They would post flyers in the student union building, send emails to student organisations, and utilise personal social media accounts to reach out to friends and acquaintances within the 18-25 age range. The researcher would then conduct in-depth interviews with 20 responding students, exploring their perceptions and experiences with social media and its impact on their mental wellbeing.

Although the convenience sample may not be representative of the larger population, it can provide valuable insights into how social media is integrated into young adults' daily lives and its potential effects on their mental health. This approach allows for an in-depth exploration of the research question, but the findings may not be generalizable beyond this specific context.

The Value of Non-Probability Samples

All non-probability samples are non-generalisable. Non-generalisable samples can be valuable in the following ways:

- Non-generalisable samples can offer detailed and nuanced insights into specific cases or contexts. Researchers can deeply explore unique circumstances and gain a comprehensive understanding of complex issues.
- Samples focusing on specific variables or concepts allow researchers to test and refine theoretical frameworks. These samples may provide evidence that supports or challenges existing theories, leading to the development of new ideas.
- In exploratory or preliminary research stages, non-generalisable samples can help researchers identify trends, patterns, and potential areas of interest for further investigation.
- Non-generalisable samples can provide context and depth to research findings, making them more relevant and applicable to specific situations.
- Qualitative research often relies on non-generalisable samples to uncover rich qualitative data, such as personal experiences, motivations, and perceptions.
- Non-generalisable samples can be valuable in comparative studies that aim to contrast different cases, contexts, or groups to identify similarities and differences.

While generalisability enhances the external validity of research findings, there are scenarios where a non-generalizable sample limitations do not necessarily diminish its usefulness. Researchers should carefully consider their research goals, methodology, and the specific insights they aim to gain when deciding on the type of sample to use.

Table 6:1

Summary of Non-Probability Samples

Sample type	Description
Purposive	Researcher seeks out elements that meet specific criteria.
Snowball	Researcher relies on participant referrals to recruit new participants.
Quota	Researcher selects cases from within several different subgroups.
Convenience	Researcher gathers data from whatever cases happen to be convenient.

Sampling in Quantitative Research

While there are instances when quantitative researchers rely on non-probability samples (like when doing exploratory research), they tend to rely on probability sampling techniques. The goals and techniques associated with probability samples differ from those of non-probability samples. We'll explore those unique goals and techniques in this section.

Probability Sampling

Probability sampling refers to sampling techniques for which a person's (or event's) likelihood of being selected for membership in the sample is both known and generalisable.

In most cases, researchers who use probability sampling methods are aiming to identify a representative sample from which to collect data. A representative sample is one that resembles the population from which it was drawn in all the ways that are important for the research being conducted.

If your population varies in some way that is important to your study, your sample should contain the same sorts of variation.

Obtaining a representative sample is important in probability sampling because a key goal of studies that rely on probability samples are generalisability. Generalisability is the idea that a study's results will tell us something about a group larger than the sample from which the findings were generated. A core principle of generalisability is that all elements in a researcher's population have an equal chance of being selected for the study. This is called random selection.

If a researcher uses random selection techniques, they will be able to estimate how closely the sample represents the larger population from which it was drawn by estimating the sampling error. Sampling error is a statistical calculation of the difference between results from a sample and the actual parameters of a population. Parameters are the actual characteristics of a population on any given variable; determined by measuring all elements in a population (as opposed to measuring elements from a sample).

Types of Probability Samples

Researchers may use a variety of probability samples. These include simple random, systematic, stratified and cluster samples.

Simple random samples are the most basic type of probability sample. To draw a simple random sample, a researcher begins with a list of every member of their population of interest, numbers each element sequentially, and then randomly selects elements from in

which they gather data. The list with all the elements in the population is called a sampling frame.

In a communication research study exploring public attitudes toward political advertising, a researcher might employ a simple random sampling method to ensure that every eligible member of the population has an equal chance of being included in the study.

To achieve this, the researcher would obtain a comprehensive list of registered voters in a specific city. From this list, they would use a random number generator to select a sample size of 300 individuals. These selected individuals would then be contacted and invited to participate in a survey about their perceptions of political advertisements.

By using a simple random sample, the researcher ensures that each registered voter has an equal probability of being chosen for the study, reducing bias, and increasing the likelihood that the sample accurately represents the broader population's views on political advertising. This approach allows the researcher to make valid inferences about the attitudes of registered voters in the city without disproportionately favouring any particular subgroup.

Drawing a simple random sample can be quite tedious. **Systematic sampling** techniques are somewhat less tedious but offer the benefits of a random sample. As with simple random samples, you must be able to produce a list of every one of your population elements. Once you've done that, to draw a systematic sample you'd simply select every kth element on your list. k is your selection interval or the distance between the elements you select for inclusion in your study. To find your selection interval, divide the total number of population elements by your desired sample size. Suppose you want to interview 25 fraternity members on your campus, and there are 100 men on campus who are members of fraternities. In this case, your selection interval, or k, is 4. To determine where on your list of population elements to begin selecting the names of the 25 men you will interview, select a random number between 1 and k and begin there. If we randomly select 3 as our starting point, we will begin by selecting the third

fraternity member on the list and then select every fourth member from there.

In a communication research study investigating media consumption habits, a researcher might opt for a systematic sampling method to gather data from a diverse range of television viewers.

The researcher selects a list of television channels that cover various genres, such as news, entertainment, sports, and documentaries. To create a systematic sample, the researcher surveys every tenth viewer on each channel who watches a particular program during a specified time slot. For instance, if the researcher chooses the news segment at 8:00 PM, they will survey the tenth viewer tuning into that specific program on each selected channel. This pattern continues across different channels and time slots. The researcher records the responses from these systematically selected viewers regarding their preferences, reasons for watching, and perceptions of media content. By using a systematic sample, the researcher ensures a structured and evenly distributed approach to selecting participants, avoiding potential biases that might arise from convenience or judgmental sampling methods. This method allows the researcher to collect data from a wide range of viewers, offering insights into media consumption patterns across different genres and channels within the population of interest.

If your sampling frame has any pattern to it, systematic sampling should not be employed, as this could bring bias into your sample.

Let's consider an example to illustrate this point. Imagine you are conducting a study on the preferences of customers at a local coffee shop. Your sampling frame is a list of customers who visit the coffee shop daily. However, upon closer examination, you notice that the list is organised based on the days of the week, with Monday's customers listed first, followed by Tuesday's customers, and so on. If you were to employ systematic sampling in this scenario, selecting every fifth customer from the list, you might inadvertently introduce bias into your sample. Since the list is organised by days

of the week, systematic sampling could lead to a disproportionate representation of customers who visit on specific days. For instance, if your systematic selection falls on a Friday, you might end up including more weekend visitors in your sample, potentially skewing the results, and failing to capture the full diversity of customer preferences across all days of the week.

In cases where the sampling frame is unbalanced, it would be better to use a ***stratified sampling*** technique. This is when a researcher divides a study population into relevant subgroups and then draws a sample from each subgroup at a select interval. For example, in a communication research study that analyses media preferences among different age groups, a researcher might employ a stratified sampling technique to ensure representative data from each age category. First, the researcher divides the target population into distinct strata based on age groups, such as 18-24, 25-40, and 41-60. The researcher randomly selects participants within each stratum using a simple random sampling method. For instance, if the target population consists of 500 individuals, with 100 in each age group, the researcher randomly selects 25 participants from each age group. Once the participants are selected, they are invited to participate in a survey or interview regarding their media consumption habits. The researcher gathers insights about how different age groups engage with various forms of media, such as television, social media, and online news platforms. By using a stratified sampling technique, the researcher ensures that each age group is adequately represented in the study, allowing for more accurate comparisons and analyses of media preferences across different generations. This approach helps avoid potential biases and provides a more comprehensive understanding of how communication habits vary among individuals of different age ranges.

Stratified random samples are also valuable when a subgroup makes up a smaller proportion of the study population you are interested in. For example, if you wanted to include both men and women's perspectives in a study, but men make up 75% of the

population, there is a chance that a simple random or systematic sampling strategy might not yield any female participants. By using stratified sampling, we could ensure that our sample contained the proportion of women that are reflective of the larger population.

A final choice is ***cluster sampling*** occurs when a researcher begins by sampling groups of population elements and then selects elements from within those groups. You would use a cluster sample when getting a master sampling frame which would be almost impossible.

For example, if you wanted to study the behaviours of communication professionals in Canada, generating a list of everyone working in the field across the country might be impractical. However, here is how you might conduct a cluster sample. You would begin by categorising media professionals into distinct clusters based on specific criteria. Clusters could be formed based on factors such as geographical location, type of media organisation (e.g., newspapers, television stations, online platforms), or specialisation (e.g., journalism, public relations, broadcasting). Next you would randomly select a representative number of clusters from your identified categories. For instance, you might choose clusters from different cities or regions where media professionals are located. Within each selected cluster, you would further narrow your focus by randomly selecting specific media organisations or outlets. You might select several newspapers, radio stations, and online news platforms from each chosen city. Within each selected media outlet, randomly sample media professionals to participate in your research. You could choose a specific number of journalists, editors, producers, broadcasters, or other relevant roles depending on your goals. You would then contact the selected media professionals within each outlet and invite them to participate in your study. Depending on your research approach, you can conduct surveys, interviews, or other data collection methods to gather insights about their experiences, perspectives, and challenges in the media industry. Using the cluster sampling technique in this context allows you to capture various viewpoints from media professionals

across various locations and types of media organisations. It enables you to explore variations in practices, perceptions, and challenges within different clusters of media professionals, contributing to a more comprehensive understanding of the media landscape.

Table 6.2

Summary of Probability Samples

Sample type	Description
Simple random	Researcher randomly selects elements from the sampling frame.
Systematic	Researcher selects every kth element from the sampling frame.
Stratified	Researcher creates subgroups then randomly selects elements from each subgroup.
Cluster	Researcher randomly selects clusters then randomly selects elements from selected clusters.

A Word of Caution: Questions to Ask About Samples

We often come across research results in our reading and discussions, but we might forget to ask important questions about where the people in the research come from and how they were chosen to be part of the study. Sometimes, we get caught up in the exciting findings and overlook the steps taken to do the research.

Now that you're aware of the various methods used to select participants for research, you can begin to pose crucial questions about the findings you encounter. This will help you be more responsible when you read and use research information.

- **Who Was Included in the Sample?** Understanding who the participants are and their characteristics is crucial. This helps you determine if the sample is representative of the target population and whether the findings can be generalised.
- **How Was the Sample Selected?** Inquire about the sampling method used (e.g., random sampling, convenience sampling) and whether it was appropriate for the research question.
- **Sample Size:** Ask about the size of the sample. A larger sample size generally increases the statistical power and generalizability of the results.
- **Demographic Information:** Gather information about demographic characteristics such as age, gender, ethnicity, socioeconomic status, etc. This helps assess the diversity and representativeness of the sample.
- **Inclusion and Exclusion Criteria:** Understand the criteria used to include or exclude participants from the study. This affects the study's applicability to specific groups or conditions.
- **Sampling Frame:** Ask about the source of the sample and how it was obtained. A well-defined sampling frame ensures the sample accurately reflects the target population.
- **Response Rate:** Inquire about the proportion of invited participants who actually participated in the study. A low response rate could introduce nonresponse bias.
- **Attrition Rate:** Find out how many participants dropped out of the study over time. High attrition rates can affect the internal and external validity of the results.
- **Comparison with Desired Population:** Compare the sample characteristics with those of the target population. Significant differences may affect the generalizability of the findings.
- **Validity of Inferences:** Assess whether the study's findings can

be appropriately generalised beyond the sample to a larger population.

By asking these key questions, you gain a comprehensive understanding of the research study's sample, ensuring that the findings are accurate, reliable, and relevant.

Reflection Question

After reading about different sampling techniques, consider a research scenario where you're investigating people's preferences for online streaming platforms. Which sampling method would you choose, and why? Discuss the advantages and potential limitations of your chosen sampling technique in gathering data for this particular study. Document your thoughts in a 200–300-word post.

Key Chapter Takeaways

• A population is the group that is the main focus of a researcher's interest; a sample is the group from whom the researcher collects data.
   • Non-probability samples might be used when researchers are conducting exploratory research, by evaluation researchers, or by researchers whose aim is to make some theoretical contribution.
   • There are several types of non-probability samples, including purposive samples, snowball samples, quota samples, and convenience samples.
   • In probability sampling, the aim is to identify a sample that resembles the population from which it was drawn.
   • There are several types of probability samples including simple

random samples, systematic samples, stratified samples, and cluster samples.

• The value of a researcher's findings isn't solely determined by their generalizability. Samples that facilitate comparisons of theoretically significant concepts or variables can produce insights that enrich our social theories and deepen our understanding of social processes.

• Sometimes researchers may make claims about populations other than those from whom their samples were drawn; other times they may make claims about a population based on a sample that is not representative. As consumers of research, we should be attentive to both possibilities.

Key Terms

Population: The collection of individuals, occurrences, objects, or other phenomena that hold your primary interest— the "who" or "what."

Sample: The assemblage of people or events from which you'll gather factual information.

Sampling: The act of choosing observations that warrant examination for research purposes.

Non-probability sampling: Sampling methods wherein the likelihood of an individual's inclusion in the sample is uncertain.

Purposive sample: A researcher identifies specific viewpoints to investigate and then enlists participants representing this entire spectrum. Also utilised when seeking individuals who meet specific, stringent criteria.

Snowball sampling: Also termed chain referral. A researcher identifies a couple of participants for a study and relies on their help in identifying additional participants. Commonly used in qualitative research.

Quota sampling: A type of non-probability sampling where a

researcher identifies subgroups within a population and selects a predetermined number of elements from each subgroup. Employed by both qualitative and quantitative researchers.

Convenience sampling: A researcher collects data from readily accessible individuals or relevant entities. Valuable in exploratory research and applied by both qualitative and quantitative researchers.

Probability sampling: Sampling techniques where the likelihood of an individual's (or event's) inclusion in the sample is known and random.

Representative sample: Mirrors the relevant attributes of the population for the conducted research.

Generalisability: The concept that a study's findings extend to a larger group than the sampled population.

Random selection: A fundamental tenet of probability sampling. "Random" in sampling refers to a selection process where every individual or element in the population has an equal and independent chance of being chosen for inclusion in the sample. In other words, randomness ensures that each member of the population has a fair opportunity to be selected without any predictable pattern or bias.

Sampling error: A statistical calculation of the variance between sample outcomes and the actual parameters of a population.

Parameters: The authentic traits of a population concerning any specific variable; deduced from assessing all elements in the population rather than just the sample.

Simple random samples: The most elementary form of probability sampling. Researchers start with a comprehensive list of all individuals in their population of interest, sequentially assign numbers, and then randomly choose elements for data collection.

Sampling frame: A list of all elements within a population.

Systematic sampling: Researchers list all population members, assign sequential numbers, and then choose every kth element on the list.

Selection interval: Derived by dividing the total population elements by the desired sample size.

Stratified sampling: Researchers divide the study population into relevant subgroups and then draw samples from each subgroup.

Cluster sampling: Researchers initiate sampling by selecting groups (or clusters) of population elements, followed by selecting elements within these clusters.

Further Reading and Resources

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Research Methods and Statistics. (2016, September 2011). 5.5 Probability sampling – complex types | Quantitative methods |Sampling | UvA [Video]. YouTube. https://www.youtube.com/watch?v=WakK8Wzmw6o&t=204s

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7. Survey Data and Question Design

Learning Objectives for Chapter

- Identify the essential components of surveys.
- Describe the benefits of surveys and their potential drawbacks.
- Evaluate the steps one should take in order to write effective survey questions and answers.

- Recognize the basic components of quantitative data analysis.

Introduction

Surveys are a significant method frequently encountered in communication research. In this chapter, we will delve into the basic principles, uses, benefits, and drawbacks of surveys. By understanding these aspects, you will gain a clearer understanding of how surveys play a role in communication studies. This knowledge will empower you to analyse research studies that utilise surveys, whether you're a media professional or someone who critically evaluates research findings.

Survey Research: What Is It and When Should It Be Used?

A survey is a methodical approach to collecting data, opinions, attitudes, or behaviours from a targeted group of individuals, typically through the administration of structured questionnaires, interviews, or online forms. This method is a powerful tool for researchers to systematically gather information that can shed light on a variety of topics across various disciplines.

The process of conducting a survey involves formulating a set of questions designed to elicit specific responses relevant to the research objectives. These questions can cover a diverse range of subjects, such as personal preferences, beliefs, experiences, behaviours, or demographic information. By employing a standardised format, surveys ensure consistency in data collection, making it easier to analyse and interpret the results.

One of the primary reasons for the widespread use of surveys is their capacity to provide quantitative data. This data can be

subjected to statistical analysis, enabling researchers to identify trends, correlations, and patterns within the responses. As a result, surveys offer a valuable means of quantifying and measuring phenomena that might otherwise be challenging to assess numerically.

Moreover, surveys are particularly valuable when researchers seek to understand the attitudes and perspectives of a larger population. Through careful sampling techniques, a relatively small group of participants, known as a sample, can be selected to represent the broader target population. This allows researchers to make inferences about the entire population based on the sample's responses.

The versatility of surveys extends to their applications across numerous fields. In business and marketing, surveys help organisations gauge customer satisfaction, gather feedback on products and services, and identify areas for improvement. In social and political sciences, surveys are pivotal in measuring public opinion, tracking societal trends, and informing policy decisions. Educational researchers use surveys to assess student performance, evaluate teaching methodologies, and enhance learning environments. Additionally, health professionals employ surveys to study patient preferences, assess healthcare outcomes, and inform medical interventions. More detail will be given regarding their specific use in communication studies in the sections that follow.

What are the Different Types of Surveys that are Common?

Surveys come in many varieties in terms of both time—when or with what frequency a survey is administered—and administration—how a survey is delivered to respondents. This section will examine types of surveys that exist in terms of both time and administration.

With regards to time, there are two main types of surveys: *cross-*

sectional and *longitudinal.* Cross- sectional surveys are those that are administered at just one point in time. These surveys offer researchers a sort of snapshot in time and give you an idea about how things are for your respondents at the particular point in time that the survey is administered. One problem with cross-sectional surveys is that the events, opinions, behaviours, and other phenomena that such surveys are designed to assess do not generally remain stagnant. Therefore, generalising from a cross-sectional survey can be tricky; perhaps you can say something about the way things were in the moment that you administered your survey, but it is difficult to know whether things remained that way for long afterwards. Cross-sectional surveys have many important uses; however, researchers must remember what they have captured by administering a cross-sectional survey: a snapshot of life at the time the survey was administered.

One way to overcome this occasional problematic aspect of cross-sectional surveys is to administer a longitudinal survey. Longitudinal surveys enable a researcher to make observations over an extended period. There are several types of longitudinal surveys, including trend, panel, and cohort surveys. We will discuss all three types here, along with another type of survey called retrospective. Retrospective surveys fall somewhere in between cross-sectional and longitudinal surveys.

The first type of longitudinal survey is called a *trend survey*. Researchers conducting trend surveys are interested in how people's inclinations change over time, i.e., trends. The Gallup opinion polls are an excellent example of trend surveys. To learn about how public opinion changes over time, Gallup administers the same questions to people at different times.

The second type of longitudinal study is called a *panel survey*. Unlike in a trend survey, the same people participate in a panel survey each time it is administered. As you might imagine, panel studies can be difficult and costly. Imagine administering a survey to the same 100 people every year for five years in a row. Keeping track of where people live, when they move, and when they die,

takes resources that researchers often do not have. When those resources are available, however, the results can be quite powerful.

Another type of longitudinal survey is a *cohort survey*. In a cohort survey, a researcher identifies some category of people who are of interest and then regularly surveys people who fall into that category. The same people do not necessarily participate from year to year, but all participants must meet whatever categorical criteria that fulfils the researcher's primary interest. Common cohorts that may be of interest to researchers include: people of particular generations or those who were born around the same time period; graduating classes; people who began work in a given industry at the same time; or perhaps people who have some specific life experience in common.

All three types of longitudinal surveys permit a researcher to make observations over time. This means that if the behaviour or other phenomenon that interests the researcher changes, either because of some world event or because people age, the researcher will be able to capture those changes.

Finally, *retrospective surveys* are similar to other longitudinal studies in that they deal with changes over time but, like a cross-sectional study, they are administered only once. In a retrospective survey, participants are asked to report events from the past. By having respondents report past behaviours, beliefs, or experiences, researchers are able to gather longitudinal-like data without actually incurring the time or expense of a longitudinal survey. Of course, this benefit must be weighed against the possibility that people's recollections of their pasts may be faulty.

When or with what frequency a survey is administered will determine whether your survey is cross-sectional or longitudinal. While longitudinal surveys are preferable in terms of their ability to track changes over time, the time and cost required to administer a longitudinal survey can be prohibitive. As you may have guessed, the issues of time described here are not necessarily unique to survey research. Other methods of data collection can be cross-sectional or longitudinal—these are really issues of research design.

We have placed our discussion of these terms here because they are most commonly used by survey researchers to describe the type of survey administered. Another aspect of survey administration deals with how surveys are administered, and we will examine that next.

Administering Surveys

There are several methods for administering surveys, each with its own advantages and drawbacks. The choice of survey administration method depends on factors such as the research objectives, target population, resources available, and the desired level of participant engagement. Below are some common ways to administer surveys, along with their pros and cons.

Online Surveys

Online surveys are administered through digital platforms, such as web-based forms or survey software. They offer convenience and accessibility, allowing participants to complete surveys at their own pace and from various locations. Online surveys can reach a broad audience quickly and are cost-effective. However, they may exclude individuals with limited internet access, and response rates can vary. Additionally, participants might rush through the survey or provide inaccurate responses.

Paper-and-Pencil Surveys

Paper surveys involve distributing printed questionnaires to participants who complete and return them manually. This method

can be suitable for populations with limited internet connectivity or familiarity with digital devices. Paper surveys provide a tangible format that some participants may find more comfortable. However, data entry and analysis can be time-consuming, and data quality might suffer from errors or missing information.

Telephone Surveys

Telephone surveys involve trained interviewers contacting participants by phone and conducting the survey verbally. They offer a personal touch and can clarify questions for participants in real-time. Telephone surveys are suitable for populations without internet access and may yield higher response rates compared to online methods. However, they can be labour-intensive, expensive, and participants may be less willing to engage in lengthy phone interviews.

Face-to-Face Surveys

In face-to-face surveys, interviewers administer the survey in person, often using paper questionnaires or electronic devices. This method allows for clarification of questions and can yield higher completion rates. It is suitable for gathering detailed information and reaching diverse populations. However, face-to-face surveys are time-consuming, costly, and may introduce interviewer bias, potentially influencing participant responses.

Mixed-Mode Surveys

Mixed-mode surveys combine two or more administration methods to enhance reach and data collection. For example, participants could start with an online survey and complete a follow-up interview by phone. Mixed-mode surveys capitalise on the strengths of each method while mitigating their weaknesses. However, coordinating multiple modes can be complex, and data comparability may be affected.

In conclusion, the method chosen for survey administration depends on various factors, including target population characteristics, research goals, resources, and data quality considerations. Online surveys offer accessibility but may lack inclusivity. Paper-and-pencil surveys provide a tangible option but require manual data entry. Telephone and face-to-face surveys offer personal interaction but can be resource-intensive. Mixed-mode surveys combine methods to optimise reach and data collection. Researchers should carefully weigh these pros and cons when selecting an administration approach to ensure the effectiveness and validity of their survey-based communication research.

When are Surveys Used in Communication Research?

Surveys are frequently employed in communication research across a variety of contexts to gain insights into people's opinions, behaviours, and attitudes related to communication processes and media consumption. Here are some common scenarios where surveys are used in communication research:

- **Media Consumption and Preferences:** Surveys are used to

understand how individuals consume different types of media, such as television, radio, social media, and print. Researchers explore preferences, frequency of use, and the impact of various media on individuals' lives.

- **Audience Analysis:** Communication researchers use surveys to analyse audience demographics, interests, and preferences. This information helps media organisations tailor content and messages to specific target groups.
- **Media Effects:** Surveys assess how exposure to different media messages influences attitudes, beliefs, and behaviours. Researchers investigate the impact of media on topics like body image, political opinions, and consumer behaviour.
- **Advertising and Marketing Research:** Surveys are crucial for assessing the effectiveness of advertising campaigns, measuring brand awareness, and understanding consumer perceptions and purchasing behaviours.
- **Public Opinion and Social Issues:** Communication scholars use surveys to gauge public opinion on social and political issues. This data informs debates, policy decisions, and advocacy efforts.
- **Communication Campaign Evaluation:** Surveys help assess the success of communication campaigns, whether they are related to public health, social awareness, or behavioural change. Researchers measure campaign reach, message recall, and behaviour change among target audiences.
- **Educational Research:** Communication scholars use surveys to study student engagement, classroom dynamics, and the effectiveness of teaching methods in communication-related courses.
- **Media Literacy and Digital Communication:** Surveys are used to assess individuals' media literacy levels, online behaviour, and attitudes toward technology and digital communication platforms.
- **Social Media Studies:** Researchers utilise surveys to explore social media usage patterns, the impact of online

communication on relationships, and perceptions of online privacy.

- **Organisational Communication:** Surveys are employed to analyse employee communication satisfaction, organisational culture, and communication effectiveness within workplaces.
- **Entertainment Research:** Surveys help researchers understand the appeal of various forms of entertainment, such as films, music, video games, and online content.

In essence, surveys are a versatile tool in communication research, providing quantitative data that support the understanding of communication dynamics, media effects, audience behaviours, and societal trends. Researchers use surveys to explore a wide range of communication-related phenomena and contribute to the advancement of communication theory and practice.

Pros and Cons of Survey Research

Surveys are a commonly employed method in communication research, offering valuable insights into individuals' attitudes, behaviours, and perceptions within various communication contexts. However, like any research approach, surveys possess both strengths and weaknesses that researchers must consider when employing them in the study of communication phenomena.

Strengths of Surveys in Communication Research

Surveys allow researchers to gather data from a large number of participants relatively quickly. For instance, in a study examining media preferences, a survey can efficiently collect responses from hundreds or even thousands of individuals.

Moreover, surveys generate quantitative data that can be subjected to statistical analysis. For example, a survey about political attitudes can yield numerical data on the percentage of respondents supporting different political parties.

In addition, well-designed surveys with representative samples can provide insights that apply to a larger population. For instance, a survey about smartphone usage habits in a certain country can offer insights into broader trends within that population.

Surveys also allow for comparisons between different groups or across different time periods; a survey about television viewing habits can reveal differences between age groups or changes in viewing patterns over the years.

Finally, surveys minimise interviewer bias and can help ensure consistent data collection, contributing to the reliability of results. A survey asking participants about their perceptions of media bias can avoid potential interviewer influence on responses.

Weaknesses of Surveys in Communication Research

Participants might provide socially desirable answers or alter their responses based on the context, leading to inaccurate data. For example, participants may overstate their engagement with educational content to appear more diligent.

Surveys may struggle to capture the depth and nuances of communication experiences. In a survey about interpersonal communication, respondents may not be able to fully convey the emotional subtleties of a conversation.

The wording of survey questions can influence participant responses. Poorly worded questions can lead to confusion or misinterpretation. For instance, a question about "television viewing" without specifying streaming services might exclude relevant data.

If the sample does not represent the target population, findings may lack generalizability. For instance, if a survey on social media habits is conducted only among college students, the results may not accurately reflect the broader population.

Low participation rates can introduce selection bias and affect the reliability of results. In a survey about media trust, a low response rate may lead to skewed perceptions of media credibility.

In summary, surveys offer efficient data collection and quantitative analysis capabilities, enabling researchers to explore communication phenomena across various contexts. However, potential response biases, limitations in capturing qualitative nuances, question wording effects, sample bias, and low response rates necessitate careful consideration and methodological rigour when designing and interpreting survey-based communication research.

Design Considerations for Survey Research

Some notes on question design

Until now, we have explored various fundamental aspects of surveys, including their appropriate utilisation, advantages, disadvantages, and diverse methods of administration. In this section, we will delve into specifics, focusing on the art of formulating clear and comprehensible questions that yield actionable data, along with strategies for effectively presenting these questions on your questionnaire.

To construct questions that generate meaningful insights, researchers should consider the following guidelines.

- **Aim for Clarity and Conciseness:** Craft questions that are succinct and unambiguous. Survey questions should be

straightforward, avoiding unnecessary complexity. Lengthy or intricate phrasing can perplex respondents and compromise data accuracy. For instance, instead of asking, "In your daily routine, how frequently do you engage in the act of viewing television programs, including both cable and satellite channels, on a scale from never to always?" simplify to "How often do you watch TV?"

- **Make sure Questions are Relevant:** Frame questions pertinent to your respondents' knowledge and experiences. Ensure that your inquiries match their familiarity with the subject matter. Inquiring about Brian Mulroney's decisions during a historical event is irrelevant when surveying today's youth who have no personal experience or understanding of the event. Or asking respondents about their sentiments regarding Canadian gun control legislation might be outside the scope of their knowledge.

- **Avoid Double Negatives:** Construct questions that are free from the use of double negatives that may hinder comprehension. For instance, instead of "Did you not find the classes in your first semester to be less demanding and interesting than your high school classes?" rephrase as "Did you find the classes in your first semester more demanding and interesting than your high school classes?"

- **Consider Cultural and Regional Sensitivity:** Ensure that your survey questions are culturally and regionally inclusive, avoiding terms or references that may not be universally understood. This ensures that respondents from diverse backgrounds can accurately interpret and respond to the questions. Instead of asking about "pub hopping" in a survey targeting an international audience, opt for a more universally recognisable term like "visiting multiple bars or pubs in one evening." Abbreviations are terms or shortcuts used within a specific context or group should be avoided as well. As an example, MRU should be Mount Royal University, COMM should be communication studies.

- **Avoid Double-Barrelled Questions:** Refrain from combining multiple questions into a single sentence, as this can lead to unclear interpretations and unreliable responses. Each question should focus on a single aspect to elicit accurate and meaningful data. Rather than asking, "Did you find the classes you took in your first semester of college to be more demanding and interesting than your high school classes?", separate this into two distinct questions: "Did you find the classes more demanding than your high school classes?" and "Did you find the classes more interesting than your high school classes?"

- **Avoid Leading Questions:** A leading question is a type of survey or interview question that suggests a particular answer or influences the respondent's opinion through its wording or phrasing. Leading questions can unintentionally bias the participants and lead them to provide responses that may not accurately reflect their true beliefs, attitudes, or experiences. Instead of framing a question to imply a specific answer, use neutral and unbiased language that does not push respondents toward a particular response. Some examples are below:

  Leading Question: "Don't you agree that our new product is the best in the market?"
  Improved Question: "What are your thoughts about our new product?
  Leading Question: "Do you think our environmentally friendly practices are better than our competitors' insufficient efforts?"
  Improved Question: "How do you view our environmental practices compared to our competitors?"

- **Avoid Prestige Bias Questions:** A prestige bias question is designed to elicit responses that portray the respondent in a positive or socially desirable light. These questions often tap into a desire to present oneself favourably to others or to

conform to perceived societal norms. Respondents may choose options that align with what they believe is socially esteemed, rather than accurately reflecting their true behaviours or attitudes. Avoid questions that may make respondents feel pressured to give a particular response based on societal norms or expectations.

> Prestige Bias Question: "Do you support our campaign to end poverty?"
>
> Improved Question: "What are your thoughts on our campaign to address poverty?"
>
> Prestige Bias Question: "Experts suggest we can make a difference with our everyday actions. Do you regularly engage in environmentally friendly practices?"
>
> Improved Question: "How often do you engage in environmentally friendly practices?"
>
> A leading question and a prestige bias question both involve influencing respondents' answers, but they do so in slightly different ways and for different reasons. The aim of a leading question is often to guide or steer respondents toward a specific response, whether intentionally or unintentionally. Leading questions can bias survey results by prompting participants to provide answers that may not accurately reflect their true beliefs, opinions, or experiences. A prestige bias question is designed to elicit responses that portray the respondent in a positive or socially desirable light. These questions often tap into a desire to present oneself favourably to others or to conform to perceived societal norms. Respondents may choose options that align with what they believe is socially esteemed, rather than accurately reflecting their true behaviours or attitudes.

- **Seek Feedback:** Prioritise obtaining feedback on your survey questions, particularly from individuals who resemble those in your sample. Multiple perspectives enhance the likelihood of

creating questions that are clear and comprehensible to a diverse range of participants. Engage with individuals who share characteristics with your intended participants to refine question clarity and relevance. A great way to do this is a pretest before the official data collection phase of your project. The primary purpose of a pretest is to identify and address any potential issues, errors, or ambiguities in the survey instrument before launching it to the larger sample.

In terms of design:

- **Strategically Use Filter Questions:** Employ filter questions judiciously to identify specific subsets of participants for targeted follow-up inquiries. This approach streamlines the survey and tailors questions to relevant respondents. As an example, begin with a filter question like "Do you own a pet?" before delving into pet-related queries. Respondents answering "yes" proceed to the next section, ensuring the relevance of subsequent questions.

By adhering to these practical guidelines, researchers can construct survey questions that effectively elicit valuable and reliable data. These considerations ensure that respondents comprehend and respond candidly, ultimately enhancing the quality and usability of survey results.

Some notes on response options

Ensuring clarity in your survey questions is essential, but the clarity of response options is equally vital.

A Likert scale is a widely used survey tool that measures respondents' attitudes or opinions on a given topic. It consists of statements to which participants rate their agreement using a

numerical scale, typically ranging from "Strongly Disagree" to "Strongly Agree." This structured approach provides quantifiable data that can be statistically analysed, allowing researchers to draw conclusions and identify trends. Likert scales are adaptable, standardised, and suitable for large samples, making them effective in collecting and comparing subjective data across diverse groups. They offer clear visualisation and are widely recognised.

Most survey researchers prefer closed-ended questions with predetermined choices over open-ended questions because they provide structured response options that are easier to analyse and quantify. This format simplifies data collection, analysis, and comparison across respondents, enhancing the efficiency and reliability of survey results. Additionally, closed-ended questions help minimise respondent fatigue and maintain survey engagement, making them a practical choice for gathering large amounts of consistent and actionable data.

Below are some other key tips.

- **Aim for One Response Answers:** Generally, respondents select a single, or occasionally multiple, response options for each question. However, allowing multiple responses to a single question can introduce complexities during result analysis. A good rule of thumb is to aim for only one selected response per question.
- **Ensure Answers are Mutually Exclusive:** Mutually exclusive means that response categories should not overlap. Imagine you are conducting a survey about people's preferred age ranges for certain activities. You have a question asking respondents to select their preferred age group for participating in outdoor sports and you offer the following as choices:
  - 18-30 years
  - 30-40 years
  - 40-50 years
  - 50-55 years

- 50+ years

In this case, the response categories are not mutually exclusive because there is overlap between adjacent age ranges. There is overlap for those who are 30, 40, 50 (i.e. they could pick multiple responses that are all correct) Thus, the response categories for age groups are not mutually exclusive in this example.

- **Ensure Response Options are Exhaustive:** This means that responses should include every potential answer. For instance, asking "How often do you exercise?" with the following response options is not exhaustive:

  - 1-2 times a week
  - 3-4 times a week
  - 5 or more times a week

  The response options are not exhaustive because they do not cover all potential exercise options. Respondents who exercise frequently might not find a suitable option, leading to inaccurate data. An easy fix is adding "I do not exercise" as it provides a comprehensive choice for those who do not engage in physical activity. "Other (please specify)" is also a great choice if you want to allow some freedom of choice and improve your options for future instrument use.

- **Avoid Offering Vague or Unclear Responses:** Using the same question as move: "How often do you exercise?" and offering the following response options is problematic:

  - Rarely
  - Sometimes
  - Often

  Without specific frequency ranges, respondents may interpret these terms differently based on their individual

perceptions, leading to subjective and potentially inconsistent responses. This is why the choices of 1-2 times a week, 3-4 times a week, 5 or more times a week, and "I do not exercise" are much better response options.

- **Avoid Response Options for Fence-Sitters and Floaters:** Fence-sitters opt for neutral responses, even if they hold opinions, possibly due to socially sensitive views. Conversely, floaters select answers despite lacking understanding or opinions. Balancing these tendencies hinges on research goals. Delving into respondents with no opinion might be desirable in certain cases, while assuming respondent familiarity with all topics might warrant forcing an opinion choice.

    For example, say you ask the following question: On a scale of 1 to 5, how satisfied are you with the quality of customer service at our store?"
    Response Options:

    ◦ Very Dissatisfied
    ◦ Somewhat Dissatisfied
    ◦ Neutral
    ◦ Somewhat Satisfied
    ◦ Very Satisfied

    The Fence-Sitter Response will be "Neutral" and the Floater Response "Very Satisfied." In this scenario, the "Neutral" response (fence-sitter) doesn't provide much insight into the respondent's actual level of satisfaction, as it could indicate uncertainty or a lack of strong opinion. On the other hand, the "Very Satisfied" response (floater) might not accurately reflect the respondent's true sentiment and could be chosen without genuine conviction.
    A revised option for responses could be:

    ◦ Very Dissatisfied

- Somewhat Dissatisfied
- Neither Satisfied nor Dissatisfied
- Somewhat Satisfied
- Very Satisfied

By adding the "Neither Satisfied nor Dissatisfied" option in the improved version, the fence-sitter response (e.g., choosing "3. Neither Satisfied nor Dissatisfied") and the floater response (e.g., choosing "5. Very Satisfied" without strong conviction) can be better addressed. This revised option allows respondents to express their true sentiment even if they feel their satisfaction level falls in between.

- **Aim For Balanced Response Options:** A survey with balanced response options is more likely to measure what it intends to measure, improving the validity of the collected data. For example, there is a problem if you offer these responses:
  - Unhappy
  - Neutral
  - Happy
  - Very Happy

  This scale is weighted in the positive; there are two positive options and only one negative.
  An improved response scale is:

  - Very Unhappy
  - Unhappy
  - Neutral
  - Happy
  - Very Happy

  This scale provides a more balanced assessment of choices and does not skew the responses towards a more positive result.

In terms of design:

- **Consider a matrix question type that groups a set of questions under identical answer categories.** This simplifies respondent navigation and maintains consistency throughout the survey.

    A sample matrix can be seen in the figure below:

Figure 7.1

Sample of a Matrix Question

Instructions: Place a check where it corresponds with how you feel about each statement.

My college classes are...	Strongly agree	Agree	Disagree	Strongly disagree
more demanding than my high school classes.	☐	☐	☐	☐
more interesting than my high school classes.	☐	☐	☐	☐
more interactive than my high school classes.	☐	☐	☐	☐
larger than my high school classes.	☐	☐	☐	☐

Other design tips

Designing effective surveys requires careful consideration to ensure accurate and meaningful data collection. Here are some other top

survey design tips to help you create surveys that yield reliable and insightful results:

- **Provide Clear Instructions:** Offer clear instructions at the beginning of the survey to guide participants on how to proceed, what's expected, and how their responses will be used.
- **Consider Question Order:** Organise questions logically and flow naturally. Start with general and non-sensitive questions before progressing to more specific or sensitive ones.
- **Use a Mix of Question Types:** Incorporate a variety of question types, including multiple-choice, Likert scale, open-ended, and demographic questions, to capture different aspects of the topic.
- **Keep it Concise:** Keep the survey concise and focused to maintain participants' interest and prevent survey fatigue. Long surveys can lead to incomplete responses or higher dropout rates.
- **Where Applicable Include Progress Indicators**: Include progress bars or indicators to show respondents how far they've come in the survey, helping to manage their expectations and encouraging completion.
- **Anonymity and Confidentiality:** Assure respondents of the confidentiality or anonymity of their responses, especially when sensitive or personal information is being collected.
- **Test and Review:** Before launching the survey, thoroughly review it for errors, typos, and inconsistencies. Test the survey on different devices and platforms to ensure a smooth experience.

Analysis of Survey Data

This text primarily focuses on designing research, collecting data,

and becoming a knowledgeable and responsible research consumer. We will not spend as much time on data analysis or what to do with our data once we have designed a study and collected it. However, we will spend some time in each of our data-collection chapters describing some important basics of data analysis that are unique to each method. Entire textbooks could be (and have been) written entirely on data analysis. If you have ever taken a statistics class, you already know much about how to analyse quantitative survey data. Here, we will go over a few basics that can get you started as you begin to think about turning all those completed questionnaires into findings you can share.

From Completed Questionnaires to Analysable Data

It can be very exciting to receive those first few completed surveys back from respondents. Hopefully, you'll even get more than a few back, and once you have a handful of completed questionnaires, your feelings may go from initial euphoria to dread. Data is fun and can also be overwhelming. The goal with data analysis is to be able to condense large amounts of information into usable and understandable chunks. Here we'll describe just how that process works for survey researchers.

As mentioned, the hope is that you will receive a good portion of the questionnaires you distributed back in a completed and readable format. The number of completed questionnaires you receive divided by the number of questionnaires you distributed is your response rate. Let's say your sample included 100 people and you sent questionnaires to each of those people. It would be wonderful if all 100 returned completed questionnaires, but the chances of that happening are about zero. If you're lucky, perhaps 75 or so will return completed questionnaires. In this case, your response rate would be 75% (75 divided by 100). That's pretty darn

good. Though response rates vary, and researchers don't always agree about what makes a good response rate, having three-quarters of your surveys returned would be considered good, even excellent, by most survey researchers. There has been lots of research done on how to improve a survey's response rate.

Suggestions include personalising questionnaires by, for example, addressing them to specific respondents rather than to some generic recipient such as "madam" or "sir"; enhancing the questionnaire's credibility by providing details about the study, contact information for the researcher, and perhaps partnering with agencies likely to be respected by respondents such as universities, hospitals, or other relevant organisations; sending out pre questionnaire notices and post questionnaire reminders; and including some token of appreciation with mailed questionnaires even if small, such as a $1 bill.

The major concern with response rates is that a low rate of response may introduce nonresponse bias into a study's findings. What if only those who have strong opinions about your study topic return their questionnaires? If that is the case, we may well find that our findings don't at all represent how things really are or, at the very least, we are limited in the claims we can make about patterns found in our data. While high return rates are certainly ideal, a recent body of research shows that concern over response rates may be overblown. Several studies have even shown that low response rates did not make much difference in findings or in sample representativeness. For now, the jury may still be out on what makes an ideal response rate and on whether, or to what extent, researchers should be concerned about response rates. Nevertheless, certainly no harm can come from aiming for as high a response rate as possible.

Whatever your survey's response rate, the major concern of survey researchers once they have their nice, big stack of completed questionnaires is condensing their data into manageable, and analyzable, bits. One major advantage of quantitative methods such as survey research, as you may recall from Chapter 2 is that they

enable researchers to describe large amounts of data because they can be represented by and condensed into numbers. In order to condense your completed surveys into analysable numbers, you'll first need to create a *codebook*. A codebook is a document that outlines how a survey researcher has translated her or his data from words into numbers.

A sample of how a codebook might look can be found below. As you'll see in the table a short variable name is given to each question. This shortened name comes in handy when entering data into a computer program for analysis.

Table 7:1

Codebook Example

Variable	Description
Respondent ID (ID)	Unique identifier for respondent
Age (AGE)	Age of respondent
Gender (GENDER)	Gender of respondent
Platform (PLAT)	Preferred social media platform

In a codebook, numerical values may be assigned to represent different categories of the "Gender" variable. Here's an example of how numerical values might be assigned to the "Gender" variable:

Table 7:2

Numerical Values in Codebook

Gender (GENDER)	Description
1	Female
2	Male
3	Other

If you've administered your questionnaire the old-fashioned way, via snail mail, the next task after creating your codebook is data entry. If you've utilised an online tool such as SurveyMonkey to administer your survey, here's some good news—most online survey tools come with the capability of importing survey results directly into a data analysis program.

For those who will be conducting manual data entry, there probably isn't much we can say about this task that will make you want to perform it other than pointing out the reward of having a database of your very own analyzable data. We won't get into too many of the details of data entry but will mention a program that survey researchers may use to analyse data once it has been entered. The first is SPSS, or the Statistical Package for the Social Sciences (http://www.spss.com).

SPSS is a statistical analysis computer program designed to analyse just the sort of data quantitative survey researchers collect. It can perform everything from very basic descriptive statistical analysis to more complex inferential statistical analysis. SPSS is touted by many for being highly accessible and relatively easy to navigate (with practice).

Identifying Patterns

Data analysis is about identifying, describing, and explaining patterns. **Univariate analysis** is the most basic form of analysis that quantitative researchers conduct. In this form, researchers describe patterns across just one variable. Univariate analysis includes frequency distributions and measures of central tendency. A frequency distribution is a way of summarising the distribution of responses on a single survey question.

Here's an example of a frequency distribution for the "Daily Social Media Use" question from the "Social Media Use Survey":

Table 7:3

Daily Social Media Use Frequency Distribution

Daily Use (DAILY)	Frequency (N)
Less than one hour	25
1-2 hours	45
2-3 hours	30
3-4 hours	15
More than four hours	10

This data shows us that 1-2 hours is the most common response for those who were surveyed.

Another form of univariate analysis that survey researchers can conduct on single variables is measures of central tendency.

Measures of central tendency tell us what the most common, or average, response is on a question.

There are three kinds of measures of central tendency: **modes,** **medians, and** **means.** Mode refers to the most common response given to a question. Modes are most appropriate for nominal-level variables. A median is the middle point in a distribution of responses. Median is the appropriate measure of central tendency for ordinal-level variables. Finally, the measure of central tendency used for interval- and ratio-level variables is the mean. To obtain a mean, one must add the value of all responses on a given variable and then divide that number of the total number of responses.

Let's consider an example of a communication research study that examines the number of hours individuals spend on social media per day:

Data: 1, 2, 3, 4, 5, 5, 6, 7, 8, 10

The mode is the value that appears most frequently in a dataset. In this case, the number 5 appears twice, which is more frequent than any other value. Therefore, the mode for this dataset is 5 hours.

The median is the middle value when data is arranged in ascending order. If there is an even number of values, the median is the average of the two middle values. Arranging the data in ascending order: 1, 2, 3, 4, 5, 5, 6, 7, 8, 10. The middle values are 5 and 6, so the median is (5 + 6) / 2 = 5.5 hours.

The mean is the average of all values in the dataset. Adding up all the values and dividing by the total number of values: (1 +2 + 3 + 4 + 5 + 5 + 6 + 7 + 8 + 10) = 51 / 10 = 5.1 hours.

In this communication research example, the mode is 5 hours (as it appears most frequently), the median is 5.5 hours (the middle value of the sorted data), and the mean is 5.1 hours (the average of all values). These measures provide insights into the central tendency of the data distribution and help researchers analyse and interpret communication behaviour patterns.

The sample size, often denoted as N would be 10 for this specific data set.

Bivariate analysis allows us to assess covariation among two

variables. This means we can find out whether changes in one variable occur together with changes in another. If two variables do not co-vary, they are said to have independence. This means simply that there is no relationship between the two variables in question. To learn whether a relationship exists between two variables, a researcher may cross-tabulate the two variables and present their relationship in a contingency table. A **contingency table** shows how variation on one variable may be contingent on variation on the other. Let's take a look at a contingency table.

Table 7:4

Contingency Table Example

Age	Less than 1 hour	1-2 hours	2-3 hours	3-4 hours
18-24	25	35	45	10
25-34	15	35	40	5
35-44	25	45	20	5
45 and above	40	30	10	5

In this example, the rows represent different age groups (18-24, 25-34, 35-44, and 45 and above), and the columns represent different ranges of daily social media use (Less than 1 hour, 1-2 hours, 2-3 hours, 3-4 hours, and more than 4 hours). The numbers in the cells indicate the count of respondents falling into each combination of age group and daily social media use category. This contingency table provides an organised way to visualise how social media use is distributed across different age groups.

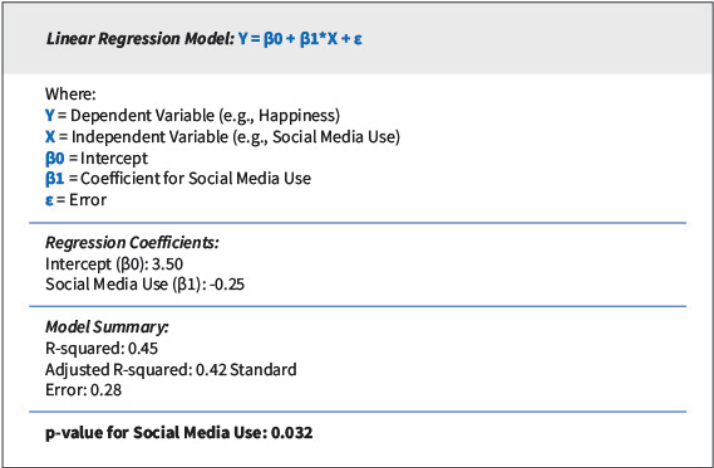Researchers also sometimes collapse response categories on

items such as this in order to make it easier to read results in a table. For example, to simplify this table you could have two age groups instead 18-34 years olds and 35 and above.

Researchers interested in simultaneously analysing relationships among more than two variables conduct multivariate analysis. We won't go into detail here about how to conduct multivariate analysis of quantitative survey items here, but it is connected to the discussion of statistical significance and p-values discussed in Chapter 3.

Below is a sample of the work SPSS might do to calculate such numbers.

Figure 7.2

SPSS Example

Linear Regression Model: Y = β0 + β1*X + ε

Where:
Y = Dependent Variable (e.g., Happiness)
X = Independent Variable (e.g., Social Media Use)
β0 = Intercept
β1 = Coefficient for Social Media Use
ε = Error

Regression Coefficients:
Intercept (β0): 3.50
Social Media Use (β1): -0.25

Model Summary:
R-squared: 0.45
Adjusted R-squared: 0.42 Standard
Error: 0.28

p-value for Social Media Use: 0.032

In this example, a multivariate regression model includes three independent variables: "Age," "Education Level," and "Social Media Use." The regression coefficients for each independent variable and

the intercept ($\beta 0$) are provided. The model summary includes the R-squared value, adjusted R-squared value, and the standard error.

The p-value for "Social Media Use" is 0.032, indicating that there is a statistically significant relationship between Social Media Use and the dependent variable (e.g., Happiness), even after accounting for the effects of the other independent variables.

Please note that this example is simplified and does not represent actual data or analysis. Multivariate regression analysis would typically be performed using statistical software and actual data.

Reflection Question

After learning about various types of surveys, their administration methods, and the design considerations involved in crafting effective survey questions, reflect on a potential research topic or area where surveys could play a crucial role. Consider the type of survey that might best suit your research objectives, the administration method that aligns with your target population, and the specific design considerations you'd need to keep in mind to ensure the validity and reliability of your survey data. How might the use of surveys in your chosen area of study contribute to a better understanding of the subject matter? Document your thoughts in a 200–300-word post.

Key Chapter Takeaways

- Surveys are systematic methods used to collect data, opinions, attitudes, or behaviours from a targeted group of individuals. They involve structured questionnaires, interviews, or online forms and offer a powerful tool for researchers to gather information on a wide range of topics in various disciplines.

- Surveys can be categorised based on time (cross-sectional and longitudinal) and administration methods (online, paper-and-pencil, telephone, face-to-face, mixed-mode). Cross-sectional surveys provide a snapshot at a specific point in time, while longitudinal surveys track changes over time. Different administration methods offer unique advantages and drawbacks, influencing factors such as accessibility, engagement, and data quality.
- Surveys are extensively used in communication research; they offer valuable insights into various communication-related phenomena and contribute to advancing communication theory and practice.
- Researchers should craft clear and concise survey questions by avoiding complex phrasing that can confuse respondents. Questions should be relevant to the respondents' knowledge and experiences. Double negatives, cultural insensitivity, and ambiguous terms should be avoided. Leading and prestige bias questions should also be minimised to ensure unbiased responses.
- Response options for surveys should be clear, mutually exclusive, exhaustive, and balanced. Closed-ended questions with predetermined choices are preferred over open-ended questions as they are easier to analyse and quantify.
- Researchers aim to condense completed surveys into analyzable data to identify patterns. Univariate analysis, which includes frequency distributions and measures of central tendency, helps describe patterns across single variables. Bivariate analysis assesses covariation between two variables using contingency tables. For more complex relationships involving multiple variables, multivariate analysis, such as regression, is conducted to identify statistically significant relationships.

Key Terms

Survey Research: A quantitative data-collection method where a researcher presents predetermined questions to an entire group, sample, or individuals to gather information.

Cross-Sectional Survey: A survey conducted at a single point in time, providing a snapshot of respondents' circumstances and insights into that specific moment.

Longitudinal Survey: A survey that spans an extended period, allowing researchers to observe changes or trends over time.

Trend Survey: A type of longitudinal survey focused on tracking shifts in people's inclinations and behaviours over time.

Panel Survey: A longitudinal survey involving consistent participation from the same individuals across multiple administrations.

Cohort Survey: A longitudinal survey where researchers regularly collect data from a specific group of individuals of interest.

Retrospective Survey: A survey similar to longitudinal studies, examining changes over time, but administered only once. Participants report past events, behaviours, beliefs, or experiences.

Double-Barrelled Questions: Questions that combine multiple queries into a single question, potentially leading to confusion or biassed responses.

Leading Question: A leading question is a type of survey question that unintentionally or intentionally guides respondents towards a particular answer by suggesting a certain perspective or bias. Leading questions can influence participants' responses and introduce bias into survey data, potentially distorting the accuracy of the findings.

Prestige Bias: Prestige bias occurs when respondents feel compelled to provide answers that align with socially desirable or prestigious beliefs or behaviours. This bias can lead to inaccurate survey responses as individuals may be motivated to present

themselves in a favourable light, rather than expressing their genuine thoughts or experiences.

Filter/Contingency Questions: Questions designed to identify a subset of survey respondents for additional, relevant questions.

Close-Ended Questions: Questions where respondents choose from a limited set of predetermined response options.

Open-Ended Questions: Questions that allow respondents to provide free-form, open responses.

Likert Scale: A Likert scale is a commonly used survey response format that measures the strength of respondents' attitudes or opinions towards a statement or question. The Likert scale provides a structured way to quantify subjective perceptions and gather valuable data for analysis.

Mutually Exclusive Response Categories: Response options that do not overlap, ensuring clear and distinct choices.

Exhaustive Response Categories: A set of response options that covers all possible answers, leaving no gaps.

Social Desirability: The tendency for respondents to answer questions in a way that portrays them favourably or conforms to social norms.

Fence Sitters: In survey research, fence sitters refer to respondents who consistently select neutral or middle-of-the-road response options, avoiding extreme opinions or positions.

Floaters: Floaters are survey respondents who provide answers to questions even when they lack knowledge, understanding, or a genuine opinion about the topic. Floaters may choose random or arbitrary responses without considering the question's content, potentially introducing noise and inaccuracies into survey data. Floaters' responses may not genuinely reflect their true perspectives, leading to unreliable or distorted findings.

Response Rate: The percentage of completed questionnaires returned, calculated by dividing the number of completed surveys by the original distribution.

Code-Book: A document detailing how a survey researcher translates textual data into numerical codes for analysis.

Mode: The most frequently occurring response in a dataset, commonly used for nominal-level variables.

Median: The middle value in a distribution of responses, useful for ordinal-level variables.

Mean: The average value in a distribution of responses, a measure of central tendency for interval and ratio-level variables.

Contingency Table: A tabular representation illustrating how variations in one variable may relate to variations in another variable.

Multivariate Regression: Multivariate regression is a statistical analysis technique used to model the relationship between a dependent variable and multiple independent variables.

Further Reading and Resources

Elon University Poll. (2014. September 26). 7 *tips for good survey questions* [Video]. YouTube. https://www.youtube.com/watch?v=Iq_fhTuY1hw

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Tencer, D. (2013, August 21). The impact of leading questions: Canada Wireless Survey: 8 in 10 oppose government's rules in telecom-sponsored survey. *Huffington Post.* http://www.huffingtonpost.ca/2013/08/21/wireless-survey-canada-verizon_n_3790792.html

8. Interviews (Qualitative, Focus Groups, Quantitative Interviews)

Learning Objectives for Chapter

- Differentiate between qualitative, focus group, and quantitative interviews, and understand their respective

applications and advantages in various research settings.
- Describe the steps involved in analysing qualitative research data.
- Identify the distinct role of focus groups in enhancing qualitative interviews, particularly when investigating social processes and interpersonal dynamic.
- Compare and contrast qualitative interviews with journalistic interactions when engaging with sources.
- Describe the key factors for successfully conducting focus groups and qualitative interviews.

Introduction

Welcome to the realm of interviews, in which conversations become pathways to uncover human experiences. This chapter introduces you to qualitative interviews, focus groups, and quantitative interviews and connects them to communication studies. Whether you're conducting one-on-one or group interviews, or seeking qualitative or quantitative data, interviews are essential tools for researchers to grasp the thoughts, emotions, and viewpoints shaping our perception of the world. No matter if you're a novice researcher, an experienced scholar, or simply curious, this chapter will serve as your guide through some of the complexities of interviews.

Qualitative Interview Research: What Is It and When Should It Be Used?

Knowing how to create and conduct a good interview is one of those skills you just can't go wrong having. In social scientific research, interviews are a method of data collection that involves two or more

people exchanging information through a series of questions and answers. A researcher designs the questions to elicit information from interview participant(s) on a specific topic or set of topics. Interviews most commonly happen in-person, between two people—though this is not always the case. Unlike surveys, in interviews, you have the opportunity to communicate directly with respondents and ask follow-up questions, which is useful when you might want to know more information about a participant's response, or if you want to clarify or explain a question.

Interviews are especially useful when the following are true:

- You wish to gather very detailed information.
- You anticipate wanting to ask respondents for more information about their responses.
- You plan to ask questions that require lengthy explanation.
- The topic you are studying is complex or may be confusing to respondents.
- Your topic involves studying processes.

For instance, imagine interviewing a healthcare professional regarding their experiences managing complex patient cases. The ability to follow up on their responses can unearth intricate details, shedding light on the decision-making processes involved. Similarly, exploring public opinion on a multifaceted political issue can be better grasped through interviews, allowing participants to elaborate on their viewpoints and reasoning.

In brief, interviews provide a lively way to connect with participants, leading to detailed insights and uncovering hidden understandings. By becoming skilled interviewers, researchers can access a wealth of valuable information, enhancing the scope and depth of their studies.

Conducting Qualitative Interviews

A key distinction between quantitative and qualitative interviews lies in their question styles. Qualitative interviews utilise open-ended questions, where the researcher refrains from offering predefined answer choices. For instance, rather than asking "Do you like the new policy?", a qualitative interviewer might inquire, "What are your thoughts on the new policy and its potential impacts?"

In the realm of qualitative interviews, a researcher often employs an interview guide, a structured set of inquiries designed to steer the conversation while allowing for participant-driven responses. For example, when investigating consumer preferences, an interview guide could include questions like, "Tell me about a recent product you purchased and what factors influenced your decision?"

To craft an effective interview guide, it's vital to avoid questions that can be answered with a simple yes or no. Instead of asking "Did you enjoy the event?", opt for "Could you describe your experience at the event and any standout moments?" Similarly, leading questions like "Don't you agree that the project was successful?" should be replaced with neutral queries such as "How do you assess the outcomes of the project?"

The beauty of qualitative interviews lies in their flexibility for follow-up questions. For example, if a participant mentions facing challenges at work, an interviewer can explore further with "Could you provide more details about the specific challenges you encountered and how you managed them?"

In practice, recording the interview offers benefits. Imagine a study on educational methods where an interviewee shares a unique teaching approach. Recording ensures that the interviewer can engage fully without the distraction of notetaking, thereby facilitating a deeper exploration of the subject.

The number of qualitative interviews that most researchers conduct can vary widely depending on several factors, including the

research goals, the complexity of the topic, the depth of analysis required, available resources, and the concept of data saturation.

There isn't a fixed or standard number of interviews that most researchers have. In some qualitative studies, researchers might conduct as few as 10 interviews, while in others, they might conduct 50 or more. The goal is to gather enough data to provide a comprehensive understanding of the research topic and to achieve data saturation, where new interviews no longer yield substantially new insights or information.

Researchers often start with a smaller number of interviews and gradually increase the number as they analyse the data and assess whether data saturation is being achieved. They may adjust the number of interviews based on how rich and diverse the data are and whether they are uncovering new themes or patterns.

As you embark on the journey of qualitative interviews, remember that their artistry lies in the thoughtful construction of questions, the fluidity of conversation, and the insights they unveil through meaningful dialogue.

The Role of Qualitative Interviews in Communication Studies

Qualitative interviews play a pivotal role in communication research by offering an in-depth exploration of human experiences, perspectives, and interactions. These interviews are employed to gather rich and nuanced data that goes beyond mere statistical figures, enabling researchers to delve into the underlying meanings and motivations behind communication phenomena. Here are some examples of how qualitative interviews are utilised in communication research:

- **Studying Online Communication:** Researchers conducting qualitative interviews might explore how individuals use social

media platforms to express their opinions on political issues. Through open-ended questions, they can uncover the reasons behind specific posting behaviours and the impact of online interactions on participants' political engagement.

- **Analysing Media Consumption:** Qualitative interviews can help researchers understand how people interpret and engage with news articles. For instance, they might ask participants to describe their reactions to a controversial news story and probe deeper into how their personal beliefs and experiences influenced their interpretation.
- **Investigating Intercultural Communication:** Qualitative interviews could be used to study how individuals from different cultural backgrounds perceive and navigate communication challenges. Researchers might inquire about instances of misunderstanding or cultural sensitivity in cross-cultural interactions, revealing insights into effective intercultural communication strategies.
- **Exploring Family Communication:** Researchers might use qualitative interviews to explore communication patterns within families. By asking participants to share stories about family conversations, researchers can gain insights into topics of discussion, decision-making dynamics, and the role of communication in maintaining family cohesion.
- **Understanding Persuasive Messaging:** Qualitative interviews can be employed to analyse the effectiveness of persuasive communication campaigns. Researchers might ask participants to describe their reactions to specific advertisements or public service announcements, uncovering the factors that contribute to attitude change or resistance.
- **Investigating Workplace Communication:** Qualitative interviews can shed light on workplace dynamics and communication challenges. Researchers might explore how employees communicate with supervisors, peers, and subordinates to understand factors that influence job satisfaction and productivity.

- **Examining Health Communication:** Qualitative interviews can be used to study patients' experiences in healthcare settings. Researchers might ask individuals to discuss their interactions with healthcare providers, revealing insights into doctor-patient communication, trust-building, and patient empowerment.
- **Looking at Celebrity Culture:** Qualitative interviews could explore how individuals engage with celebrity culture and the media. Researchers might ask participants to discuss their attitudes toward celebrities, their reasons for following certain celebrities, and the impact of celebrity endorsements on their purchasing decisions.
- **Investigating Group Decision-Making:** Qualitative interviews can help researchers understand how groups make decisions. For instance, researchers might interview members of a focus group to uncover the communication dynamics that lead to consensus or conflict during group discussions.
- **Evaluating Social Media Influences:** Qualitative interviews could delve into how social media influencers impact consumer behaviour. Researchers might ask participants about their motivations for following influencers, the influence of sponsored content, and how they navigate authenticity and trust issues.

These examples illustrate the versatility of qualitative interviews in communication research, showcasing their ability to uncover insights across various communication contexts and phenomena.

The Pros and Cons of Qualitative Interviews

Qualitative interviews in research offer in-depth insights into participants' experiences and perspectives, especially useful for exploring complex and sensitive topics. Their flexibility allows for

contextual understanding and participant empowerment. However, subjectivity, small sample sizes, time/resource demands, and data analysis challenges are potential drawbacks. Researchers should balance the benefits and limitations when choosing this method for their exploration of communication studies. This is explored in greater detail below.

The Strengths of Qualitative Interview in Communication Research

Qualitative interviews hold significant strengths in the realm of communication research, when exploring human experiences and behaviours. One of the most prominent advantages is their ability to delve deeply into participants' perspectives, allowing researchers to uncover rich and nuanced insights that quantitative methods often struggle to capture. By employing open-ended questions, qualitative interviews encourage participants to express themselves in their own words, providing authentic and contextualised responses.

Furthermore, these interviews enable researchers to explore complex and multifaceted communication phenomena. The flexibility of qualitative interviews permits researchers to adapt their approach during conversations, asking follow-up questions to explore unexpected dimensions and intricate details. This dynamic interaction fosters a deeper connection between the researcher and the participant, facilitating candid and in-depth responses.

The contextual understanding derived from qualitative interviews is another compelling strength. Participants have the freedom to elaborate on the social, cultural, and emotional factors that influence their communication experiences. This contextualisation enhances the richness of the gathered data, painting a comprehensive picture of how communication processes unfold in real-life contexts.

Qualitative interviews excel in exploratory research, serving as a valuable tool for generating hypotheses and exploring new avenues of inquiry. They provide a space for participants to share their stories, beliefs, and perspectives, thereby contributing to a holistic understanding of communication phenomena. This participatory approach empowers individuals to shape the research narrative and ensures that their voices are heard.

Limitations of Qualitative Interviews in Communication Research

While qualitative interviews offer valuable insights, they are not without their limitations in the realm of communication research. One notable weakness is the inherent subjectivity that can influence both the data collection process and subsequent analysis. Researchers' personal biases and interpretations may inadvertently shape the questions asked, participant selection, and the way data is interpreted, potentially introducing a degree of researcher-driven bias.

Additionally, qualitative interviews often involve smaller sample sizes compared to quantitative methods. While this allows for in-depth exploration, it limits the generalisability of findings to broader populations or contexts. The time and resources required for conducting qualitative interviews, including transcription and analysis, can be substantial, potentially constraining the feasibility of large-scale studies.

Analysing qualitative data poses its own challenges, demanding specialised skills to identify patterns, themes, and insights within the narratives collected. This complexity can lead to varying interpretations among researchers and require careful consideration to ensure trustworthiness in the analysis process.

Furthermore, the nature of qualitative interviews raises ethical considerations, particularly concerning participant confidentiality

and informed consent. Ensuring that participants' rights are upheld while exploring sensitive topics requires careful navigation and meticulous adherence to ethical guidelines.

In sum, the strengths of qualitative interviews in communication research lie in their capacity to uncover deep insights, adapt to complex topics, foster contextual understanding, and facilitate exploratory investigations. These strengths position qualitative interviews as an indispensable method for researchers seeking to unravel human communication. In contrast, the weaknesses of qualitative interviews in communication research include the potential for subjectivity and researcher bias, limited sample sizes, resource-intensive demands, complexities in data analysis, and ethical challenges. Researchers must be cognisant of these limitations and address them thoughtfully to maximise the trustworthiness of their qualitative interview studies.

Analysis of Qualitative Data

Analysis of qualitative interview data typically begins with a set of transcripts of the interviews conducted, which requires having either taken exceptionally good notes during an interview or, preferably, recorded the interview and then transcribed it. To transcribe an interview, which is usually the first step in analysing data, you produce a complete, written copy of the recorded interview by playing the recording back and typing in each word that is spoken on the recording, noting who spoke which words. It is also useful to take note of nonverbal behaviours and interactions in your transcription.

The goal of analysis is to reach some inferences, lessons, or conclusions by condensing large amounts of data into relatively smaller, more manageable bits of understandable information.

To move from the specific observations an interviewer collects to identifying patterns across those observations, qualitative

interviewers will often begin by reading through transcripts of their interviews and trying to identify codes. A code is a shorthand representation of some more complex set of issues or ideas. The process of identifying codes in one's qualitative data is often referred to as coding. Coding involves identifying themes across interview data by reading and rereading (and rereading again) interview transcripts until the researcher has a clear idea about what sorts of themes come up across the interviews.

There are two types of coding: open coding and focused coding.

In qualitative data analysis, coding serves as a pivotal bridge between raw data and meaningful insights. Two main types of coding, open coding and focused coding, guide researchers in extracting and interpreting patterns from interview transcripts. Let's delve deeper into each type with communication-based examples.

Open Coding

Imagine conducting interviews about individuals' experiences with public speaking anxiety. During open coding, you meticulously examine each transcript line by line. As you read, certain recurring ideas or concepts catch your attention. For instance, participants often mention physical symptoms like rapid heartbeat and sweating as manifestations of their anxiety. You note down these themes, creating preliminary categories. Similarly, participants might discuss coping mechanisms, such as deep breathing exercises, to manage their anxiety. These emerging categories form the basis of open coding, capturing the diverse responses and experiences participants share.

Focused Coding

Building on your open coding, you transition to focused coding. Here, your aim is to distil and consolidate the array of themes identified during open coding. You revisit the notes you made while conducting open coding and start to see connections. For instance, you notice that physical symptoms and coping mechanisms are closely related, suggesting an overarching theme of "Anxiety Manifestations and Coping Strategies." You might also realise that some participants discuss their fear of judgement from peers, aligning with the broader concept of "Social Evaluation Anxiety."

During focused coding, you take these interconnected themes and collapse or narrow them down, capturing their essence succinctly. For example, you might merge the themes related to physical symptoms and coping strategies into a single code called "Physiological Responses and Coping." Similarly, you combine the concepts of social evaluation anxiety under the code "Fear of Peer Judgment."

Next, you assign these collapsed themes or categories descriptive names or codes. You locate passages within the transcripts that align with each code, providing concrete examples. Alongside these codes, you create brief definitions or descriptions to encapsulate the core meaning of each theme. These descriptions not only aid in data organisation but also guide your subsequent analysis and interpretation.

By meticulously following the process of open coding and focused coding, you transition from a wealth of interview data to a structured framework of interconnected themes. This framework becomes the foundation for deriving insights, drawing conclusions, and uncovering the nuances of communication-related phenomena within the context of public speaking anxiety.

Specific Methods of Analysing Data in

Qualitative Content Analysis

Qualitative interview analysis encompasses a variety of methods for interpreting and extracting meaning from textual data, extending beyond what was previously outlined. Below are specific approaches to analysing data, representing common methods found in communication studies. These methods are applicable not only to interviews and focus groups but also to unobtrusive data, which will be further discussed in the chapters that follow.

Table 8.1

Qualitative Content Analysis Methods

Method	Focus	Steps	Example
Thematic Analysis	Identifying and analysing themes or patterns	1. Familiarisation 2. Initial Coding 3. Theme Development 4. Review and Refine 5. Defining and Naming Themes	Analysing interview transcripts to identify themes related to social media's impact on self-esteem among teenagers
Discourse Analysis	Examining how language constructs meaning and realities	1. Identify Discursive Practices 2. Analyze Context 3. Interpret Meanings	Analysing political speeches to understand how language is used to construct national identity and power
Narrative Analysis	Exploring stories and personal accounts	1. Identify Story Elements 2. Analyse Narrative Structure 3. Interpret Stories	Studying personal blogs to explore how cancer patients narrate their journeys and cope with their illness
Grounded Theory	Developing theories grounded in the data	1. Initial Coding 2. Theoretical Sampling 3. Constant Comparison 4. Theory Development	Building a theory on how remote work affects team dynamics based on repeated interviews and observations

Phenomenological Analysis	Understanding lived experiences and perceptions	1. Epoche (Bracketing) 2. Intuitive Description 3.Phenomenological Reduction 4. Essences Identification	Exploring the lived experiences of individuals coping with chronic pain to understand their perceptions and coping mechanisms
Conversation Analysis	Analysing structure and organisation of spoken discourse	1. Transcription 2. Segmentation 3. Sequence Analysis 4. Interaction Analysis	Analysing recorded conversations between healthcare providers and patients to understand how medical decisions are negotiated and communicated

These methods offer diverse approaches to analysing qualitative interview data, providing researchers with a range of tools to explore complex phenomena in communication studies and other fields. Some of these methods may also be applied to qualitative content analysis discussed in Chapter 10.

How do Qualitative Interviews Differ for Journalistic Outreach to Sources?

Qualitative interviews and journalistic interviews share some similarities in terms of their aim to gather insights and information from participants, but they also have distinct differences based on their purposes, methods, and contexts. Here's a quick look at how qualitative interviews typically differ from journalistic interviews.

Purpose and Goal

Qualitative Interviews often used in research settings to explore participants' perspectives, experiences, and emotions in-depth. The goal is to uncover rich and nuanced information for academic, social, or cultural understanding.

Journalistic interviews are conducted by journalists to gather information, quotes, and perspectives for news stories, articles, or reports. The aim is to obtain information that is relevant to a specific news topic or story.

General Approach

Qualitative Interviews primarily used as a research methodology to gain insights into specific research questions or phenomena. Researchers often employ open-ended questions to encourage participants to share detailed accounts of their experiences.

Journalists conduct interviews to gather quotes and firsthand information for use in news articles. The questions asked are tailored to the news angle and seek concise and quotable responses.

Depth and Relationship with Sources

Qualitative interviews aim to delve deep into participants' thoughts, emotions, and experiences. They often allow participants to share personal stories and elaborate on their viewpoints. Researchers aim to establish a rapport and build a comfortable environment for participants to share personal experiences. The relationship is more exploratory and can involve back-and-forth conversations.

Journalistic interviews tend to focus on extracting concise and impactful statements from participants that can be integrated into

a news story. The context may be more limited compared to the broader context explored in qualitative interviews. Journalists may have limited time to establish a rapport, and the interview may be more transactional. The focus is on obtaining relevant information quickly.

Ethical Considerations

Researchers prioritise informed consent, confidentiality, and participant comfort. They may go through an ethics review process to ensure participant well-being and data integrity.

While ethical considerations are also important, journalists may prioritise obtaining timely and newsworthy information. They must balance the need for transparency with respecting participants' privacy and sensitivity.

Editing and Presentation

In Research Qualitative Interviews the full context of participants' responses is often preserved, and detailed analysis may follow. Direct quotes are used to support research findings.

Journalists have editorial control over which quotes to include, and responses may be edited for clarity, relevance, or space limitations. Quotes are used to create a compelling narrative.

Analysis and Reporting

Researchers analyse qualitative interview data rigorously to identify patterns, themes, and insights contributing to research findings

(many strategies support this). Results are often presented in academic papers, reports, or publications.

Journalists use the information gathered from interviews to create news stories. Quotes and interview information are integrated into articles to provide firsthand perspectives and evidence for news events.

In summary, while both qualitative interviews and journalistic interviews involve conversation-based data gathering, they differ in terms of their underlying purposes, methods, depth of exploration, ethical considerations, and the way the gathered information is used and reported.

Focus Groups: What are they and why use them?

In contrast to the more directed role of a researcher in interviews, focus groups constitute structured discussions carefully orchestrated to foster group dynamics and collect insights on a defined topic within a permissive and comfortable environment (Krueger & Casey, 2000, p. 5). The essence of focus groups lies in their collaborative nature, where participants engage in conversation, sparking interactions that provide nuanced perspectives. In this context, the researcher orchestrates the initial questions or topics for discussion, allowing participants to converse freely while making keen observations on their interactions.

The ideal size of a focus group typically ranges from 6 to 10 participants, depending on factors such as research goals, topic complexity, and available resources. This size ensures meaningful interaction, diverse perspectives, and manageable discussions. Smaller groups encourage more in-depth and open discussions, while larger groups may lead to subgroups and less participation. Ultimately, the size should be chosen based on the specific research context to foster productive conversations and generate valuable insights.

The number of focus groups conducted in a research study can vary widely depending on the research objectives, the complexity of the topic, available resources, and the depth of insights required. There isn't a fixed or standard number of focus groups that most research groups have, as it is highly context dependent.

In some cases, researchers might conduct only one or two focus groups to explore a specific research question. In other instances, especially for more complex or multifaceted topics, researchers might conduct several focus groups to ensure a comprehensive understanding of different perspectives and variations within the population.

A common approach is to start with fewer focus groups and then assess the theoretical saturation point – the point at which new insights or information cease to emerge. If saturation is reached quickly, fewer focus groups might suffice. If new insights continue to emerge, researchers might conduct additional groups.

The concept of theoretical saturation is closely linked to the idea of data saturation. Data saturation occurs when collecting additional data no longer leads to the discovery of new information or themes. Theoretical saturation goes a step further by emphasising that not only are no new data emerging, but also that the existing data have been thoroughly explored in relation to the theoretical framework being used.

Unlike traditional interviews that focus on individual responses, the crux of focus group research centres on group dynamics and collective exchanges. The spontaneous and unpredictable nature of group interactions directs focus groups towards qualitative exploration rather than quantitative measurement.

Focus Groups in Communication Research

Focus groups are chosen over qualitative interviews in specific settings due to their unique advantages that align well with the

nature and goals of the research. While both methods involve qualitative data collection, focus groups offer distinct benefits that make them particularly suited for certain communication research contexts such as:

- **Media Content Analysis:** Focus groups allow researchers to observe how participants collectively react to media content. Participants' interactions can highlight differing interpretations, reactions, and shared meanings that might not emerge in one-on-one interviews. This group dynamic provides insights into how media messages are negotiated and constructed collectively.
- **Intercultural Cultural Studies:** Focus groups facilitate interactions between participants from diverse cultural backgrounds. This setting can illuminate the dynamics of cross-cultural communication and highlight intergroup perceptions and misperceptions, offering a more comprehensive understanding of cultural influences.
- **Public Opinion and Perception:** Focus groups enable researchers to capture group dynamics and social influence on opinions and perceptions. Observing group discussions can reveal how participants' views evolve through interactions, allowing researchers to better understand the underlying factors that shape public opinion.
- **Health Communication Campaigns:** Focus groups provide a platform for participants to brainstorm ideas, collectively refine messages, and offer feedback on health communication materials. The group setting can stimulate creative discussions and generate insights that may not arise in individual interviews.
- **Interactive Media and Technology:** Focus groups offer the advantage of observing group members' reactions to technology or interactive media in real-time. This dynamic interaction can reveal patterns of engagement, usability issues, and shared experiences that contribute to a holistic

understanding of user interactions.

- **Intergenerational Communication:** Focus groups facilitate interactions between different age groups, allowing researchers to explore intergenerational communication dynamics and observe how participants from various generations communicate and interact.
- **Crisis Communication:** Focus groups simulate group discussions during crisis situations, providing insights into how participants collectively perceive and respond to crisis. This approach can help organisations anticipate public reactions and tailor crisis communication strategies accordingly.
- **Online Communities:** Focus groups conducted virtually emulate online community interactions more effectively than individual interviews. Participants can engage in threaded discussions, mimicking the digital interactions they experience in online forums and social media platforms.
- **Language and Linguistics:** Focus groups enable researchers to explore group dynamics in language use, revealing shared linguistic norms, practices, and linguistic variations that may be more evident in group interactions compared to individual interviews.
- **Visual Communication:** Focus groups provide a platform for participants to evaluate visual elements and discuss their perceptions collectively. Observing how group members respond to visual stimuli can uncover shared patterns of interpretation and preferences.
- **Corporate Communication:** Focus groups capture collective perceptions of organisational communication efforts, fostering discussions among employees that reveal common concerns, needs, and suggestions for improvement.
- **Consumer behaviour and Marketing:** Focus groups allow researchers to explore group dynamics in consumer decision-making, uncovering how participants influence each other's preferences, perceptions, and attitudes towards products and

services.

In essence, focus groups shine in contexts where group dynamics, collective reactions, and interactive discussions are of particular interest. While qualitative interviews provide deep individual insights, focus groups offer a distinctive lens into shared meanings, group influences, and the social construction of communication phenomena.

Some strengths and limitations of focus groups

Indeed, focus groups share the strengths and limitations inherent in one-on-one qualitative interviews. However, they bring their own distinctive advantages.

For instance, focus groups provide in-depth insights by exploring topics from various angles within a group setting. They are generally less time-consuming than one-on-one interviews, making them an efficient method for gathering comprehensive data. However, the data collected should be understood as the result of a group discussion, not as a shortcut for individual interviews. Moreover, focus groups are particularly useful for studying social processes and understanding how individuals interact with and influence each other. Researchers can also observe both verbal expressions and non-verbal cues, further enhancing the depth of the data collected.

Among their unique disadvantages involves the logistics and organisational requirements which can make them relatively more expensive to conduct. While more efficient than one-on-one interviews, focus groups can still be more time-consuming than survey research. Moreover, a potential drawback is that a minority of participants might dominate the discussions, limiting input from others. Unlike one-on-one interviews where the researcher has more control over the environment, focus groups demand meticulous planning to encourage productive interactions among

participants. Focus group discussions generate a substantial amount of data, including verbal responses, non-verbal cues, and interactions. Managing and analysing this complex data can be time-consuming.

In summary, focus groups serve as a distinctive avenue for qualitative research, providing opportunities to tap into the dynamics of group interactions and explore nuanced social phenomena. Researchers must navigate their strengths and weaknesses while meticulously planning to facilitate meaningful exchanges among participants.

Key Tips for a Successful Qualitative Interview or Focus Group

To conduct a successful qualitative interview, consider the following tips:

- Prepare a flexible yet structured interview guide with open-ended questions that encourage participants to share in-depth responses.
- Create a comfortable and trusting environment by introducing yourself, explaining the interview process, and establishing a rapport with the participant.
- Practice active listening by paying close attention to the participant's responses, body language, and emotions. Show genuine interest and engagement throughout the conversation.
- Use probing questions to explore deeper insights and encourage participants to elaborate on their responses.
- Don't rush to fill silences. Give participants time to gather their thoughts and respond thoughtfully.
- While sticking to your guide, be open to following interesting tangents that may arise during the conversation.

- Maintain consistency in your interview approach, probe for clarity, and consider involving peer debriefing or member checking to enhance the validity of your findings.
- If you're analysing recorded interviews, transcribe them accurately, ensuring you capture nuances, pauses, and emotions.
- When reporting your findings, provide context, include representative quotes, and link insights back to your research objective.
- Each interview is a learning experience. Continuously refine your skills, adapt your techniques, and incorporate lessons learned into future interviews.

Conducting a successful focus group requires careful planning, effective facilitation, and thoughtful analysis. Here are some top tips for conducting a great focus group:

- Carefully choose a diverse group of participants who have relevant knowledge, or experiences related to the topic. Aim for a balanced mix of backgrounds, perspectives, and demographics.
- Choose a skilled and neutral moderator who can guide the discussion, encourage participation, and manage group dynamics. The moderator's role is to facilitate, not dominate, the conversation.
- Develop open-ended and engaging questions that encourage participants to share their thoughts and experiences. Avoid leading or biassed questions. Just like in survey question design
- Create a flexible but structured discussion guide to ensure that key topics are covered while allowing room for spontaneous insights. However, be ready to deviate from the guide if interesting points arise.
- Foster a comfortable and respectful atmosphere. Start with icebreaker questions to help participants relax and interact.

Manage dominant participants to ensure everyone's voice is heard.

- Use probing techniques to dig deeper into participants' responses. Ask follow-up questions that encourage elaboration and provide a deeper understanding of their perspectives.
- Keep the discussion on track and manage time effectively. Allocate sufficient time for each topic while ensuring you cover everything planned. Be well-prepared but also adaptable. Focus groups can take unexpected turns, so be ready to adjust your approach based on participants' reactions.
- Record the focus group session, with participants' consent, to capture detailed responses accurately. This will help during analysis and ensure you don't miss important insights.
- Have a clear plan for analysing the data collected from the focus group. Decide on the approach you'll use to identify patterns, themes, and key takeaways. Remember you are analysing the group not individuals.
- Consider sharing a summary of the findings with participants to validate accuracy and gather feedback before finalising your analysis to increase trustworthiness.

Remember, a successful focus group involves not only collecting data but also creating a respectful and collaborative environment that encourages meaningful interactions and valuable insights.

Quantitative Interview Techniques and Considerations in Communication Research

In the realm of communication research, quantitative interviews serve as a structured and data-driven approach to gather insights and analyse patterns. While sharing certain aspects with qualitative interviews, quantitative interviews diverge significantly in terms of their methodology and analytical processes. Let's explore these

differences through concrete examples from communication research.

Conducting Quantitative Interviews

Quantitative interviews, often labelled as survey interviews, resemble survey-style question-and-answer formats frequently used in communication research. For instance, when investigating public perceptions of media credibility, researchers might conduct quantitative interviews to collect standardised responses from participants regarding their trust in various news sources.

In quantitative interviews, researchers meticulously craft an interview schedule containing predefined questions and response options. Unlike qualitative interviews, where flexibility is key, the structure in quantitative interviews ensures consistency in the way questions and answer options are presented. This uniformity minimises the potential "interviewer effect," where respondents' answers are influenced by variations in how questions are posed.

Consider a study on social media usage patterns. A quantitative interviewer follows a structured interview schedule, posing specific questions about the frequency of social media engagement and the platforms used. This method allows for efficient data collection from a large and diverse sample, providing statistical insights into broader social media trends.

Analysis of Quantitative Interview Data

In the analysis phase, quantitative interview data are processed to uncover meaningful patterns. Researchers utilise coding techniques to translate respondents' answers into numerical values. For example, in a study exploring public attitudes towards online

privacy, researchers assign numeric codes to respondents' preferences for sharing personal information on social media.

For closed-ended questions, where respondents select from predetermined answer options, the data are easily translated into numerical codes. This numeric data is then entered into statistical software for analysis. Researchers may employ statistical commands to identify correlations, trends, or significant differences in respondents' answers. In the case of open-ended questions, such as soliciting suggestions for improving digital communication tools, responses are carefully coded and categorised before being subjected to statistical analysis.

Imagine a quantitative interview study examining public sentiment towards online advertising. Researchers code respondents' answers regarding their preferences for personalised advertisements versus generic ads. Statistical analyses then reveal whether demographic factors, such as age or income, influence these preferences, shedding light on the dynamics of online advertising effectiveness.

To summarise, quantitative interviews in communication research involve structured questionnaires, standardised responses, and meticulous data analysis. Researchers rely on coding and statistical techniques to derive insights from numerical data, enabling them to uncover patterns, correlations, and trends within a large and representative sample. These interviews offer a quantitative lens through which to explore communication phenomena, complementing the qualitative depth of other research methods.

Issues to Consider for All Interview Types

While quantitative interviews resemble survey research in their question/answer formats, they share with qualitative interviews the characteristic that the researcher actually interacts with her

or his subjects. The fact that the researcher interacts with his or her subjects creates a few complexities that deserve attention. We'll examine those here:

- **Power:** First and foremost, researchers must be aware of the power imbalance between themselves and interview participants. The interviewer sets the agenda, leads the conversation, and generally does not reciprocate or reveal anything about themselves. Suggestions for overcoming this power imbalance include having the researcher reveal some aspects of her own identity and story so that the interview is a more reciprocal experience rather than one-sided, allowing participants to view and edit interview transcripts before the researcher uses them for analysis, giving participants an opportunity to read and comment on analysis before the researcher shares it with others through publication or presentation, and sharing the intent and rationale of your research with participants.
- **Location:** One way to balance the power between researcher and respondent is to conduct the interview in a location of the participants' choosing, where he or she will feel most comfortable answering your questions, though identifying a location where there will be few distractions is also important. The extent to which a respondent should be given complete control over choosing a location must also be balanced by accessibility of the location to you, the interviewer, and by your safety and comfort level with the location.
- **Researcher-Respondent Relationship.** One essential relationship element in both quantitative and qualitative interviews is the same: respect. Rapport, active listening, and probes are key factors. Rapport is the sense of connection you build with a participant. Active listening means that you should participate with the respondent by showing that you understand and are following what they are telling you. Finally, a probe is a request for more information used by qualitative

and quantitative researchers, though their methods vary.

Reflection Question

How does the group dynamic in a focus group contribute to a richer understanding of communication phenomena compared to individual qualitative interviews?? Document your thoughts in a 200–300-word post.

Key Chapter Takeaways

- Interviews are powerful tools for researchers to uncover human experiences, thoughts, emotions, and viewpoints. Qualitative, focus group, and quantitative interviews are distinct methods, each with its applications and advantages.
- Qualitative interviews provide insights into communication phenomena, such as online communication, media consumption, intercultural communication, and persuasive messaging. They offer a window into the rich and nuanced world of human communication experiences.
- Strengths of qualitative interviews include depth, flexibility, contextual understanding, and participatory exploration. Limitations include researcher bias, small sample sizes, time/resource demands, analysis complexity, and ethical considerations. Researchers must weigh the benefits and drawbacks to effectively utilise qualitative interviews.
- There are diverse approaches to analysing the qualitative data generated in interviews, providing researchers with a range of tools to explore complex phenomena in communication studies and other fields.
- Focus groups complement qualitative interviews by

emphasising group interactions and collaborative insights. There are some topics particularly well suited to focus groups.

- Focus groups offer comprehensive insights from diverse perspectives within a contextual framework, providing an efficient means of studying social processes and interpersonal dynamics, including non-verbal cues. However, challenges include potential costliness due to logistical demands, a tendency for certain participants to dominate discussions, and the need for careful planning to ensure productive interactions among participants.
- Qualitative interviews are geared toward in-depth research exploration, deploying open-ended questions and careful analysis for academic understanding. In contrast, journalistic interviews focus on obtaining concise, relevant information for news stories, emphasising timeliness, transparency, and impactful quotes. Both approaches have distinct goals, methods, ethical considerations, and dissemination outcomes.
- Quantitative interviews gather structured data through survey-style questions. Researchers use closed-ended questions and standardised response options to ensure consistency. Analysis involves coding and statistical techniques to uncover patterns and correlations.
- All interviews carry common concerns. Researchers must address power imbalances by revealing aspects of their identity, involving participants in analysis, and sharing research intent. Balancing power also involves conducting interviews in participant-chosen, comfortable locations, while maintaining accessibility and safety. Building rapport, active listening, and probing are vital for establishing respectful researcher-respondent relationships in both quantitative and qualitative interviews.

Key Terms

Qualitative Interviews: These are research methods where a researcher conducts one-on-one interviews with participants to gather in-depth, non-numerical data about their experiences, perspectives, and opinions.

Interview Guide: A structured set of open-ended questions or topics designed to guide the qualitative interviews. It helps ensure consistency across interviews while allowing for flexibility and deeper exploration.

Focus Groups: Group discussions involving a small number of participants (usually 6-10) led by a moderator. Focus groups encourage interaction and collective exploration of a particular topic.

Theoretical Saturation: Refers to the stage in data collection and analysis where new data no longer provide additional insights or information that contribute to the development or refinement of theoretical concepts or themes. It is the point at which researchers feel that they have thoroughly explored and understood the central themes or patterns within their data, and collecting more data is unlikely to yield substantially new or different insights.

Data Saturation: A concept in qualitative research that refers to the point in data collection and analysis where gathering additional data no longer provides new or substantially different insights, themes, or information.

Transcription: The process of converting recorded interviews or discussions into written or typed text. This is a critical step in qualitative research to prepare data for analysis.

Coding: The process of categorising, labelling, and organising data in order to identify patterns, themes, and concepts. It is a fundamental step in data analysis, particularly in qualitative research, where researchers aim to make sense of large volumes of unstructured or semi-structured data, such as interviews, focus group discussions, or written documents.

Open Coding: The initial stage of qualitative data analysis where researchers read through the transcribed data and assign codes (labels) to segments of text to identify patterns, concepts, and themes.

Focused Coding: A subsequent stage of coding where researchers refine and consolidate the open codes into more specific and meaningful categories, allowing for deeper understanding of the data.

Thematic Analysis: Involves systematically identifying recurring patterns or themes within qualitative data, providing insights into the underlying meanings or concepts present in the material.

Discourse Analysis: A methodological approach that examines how language constructs meaning within social contexts, shedding light on power dynamics, cultural norms, and social identities.

Narrative Analysis: Narrative Analysis focuses on the structure, content, and meaning of stories or narratives, exploring how individuals construct and convey their experiences through storytelling.

Grounded Theory: Involves developing theories or conceptual frameworks directly from empirical data. By systematically collecting, coding, and analysing data, researchers can generate new insights grounded in the data itself, rather than starting with preconceived theories or hypotheses.

Phenomenological Analysis: Seeks to understand individuals' lived experiences and subjective perceptions of phenomena by uncovering the essence or meaning of experiences as perceived by participants.

Conversation Analysis: Examines the structure, organisation, and sequential patterns of spoken interaction, revealing how participants in conversations co-construct meaning and manage interactional dynamics.

Peer debriefing: A qualitative research practice involving the process of sharing and discussing findings, interpretations, and analysis with colleagues or peers. This practice aims to enhance the rigour and credibility of the research by obtaining external input

and insights from individuals who are not directly involved in the research process.

Active Listening: A key skill in qualitative interviews and focus groups, involving attentive and empathetic listening to participants. It helps researchers build rapport, gather rich data, and understand the nuances of participants' responses.

Probes: Follow-up questions or prompts used by researchers during interviews or focus groups to encourage participants to elaborate on their responses, clarify their thoughts, or explore specific aspects of a topic.

Further Reading and Resources

Gibbs, G. (2013, January 18). How to do a research interview [Video]. YouTube. https://www.youtube.com/watch?v=9t-_hYjAKww

UBC Learn (2013, Nov 19). Conducting a focus group [Video]. YouTube .https://www.youtube.com/watch?v=Auf9pkuCc8k

9. Observational Research (Structured Observation and Ethnography)

Learning Objectives for Chapter

- Identify the essential components of structured observation and its contribution to communication studies.

- Recognize the benefits and potential drawbacks of structured observation.
- Identify the key components of field work and its contribution to communication studies.
- Define how ethnography and participant observation may be seen as different from field work.
- Recognize the benefits and potential drawbacks of fieldwork.
- Differentiate between covert and overt roles, open and closed settings, and the central roles that researchers can occupy in ethnographic work.
- Differentiate the goals and scope of field work with those of investigative journalism.

Introduction

In the world of communication studies, the way we choose to study things affects how well we understand them. There are two important ways that researchers look at human communication: structured observation and ethnography. These methods help us see the small details and big picture of how people communicate by watching them. This chapter looks closely at structured observation and ethnography in communication studies. It explains what they are, when they are useful, what they are good at, and where they might have limitations. This information can help both researchers and people interested in media get a better idea of how human communication works.

This chapter also explores how fieldwork is different from investigative journalism. It compares how both these practices work and what they are trying to achieve. By understanding all of this, we can learn more about communication and keep improving how we study and talk about it.

Structured Observation: What Is It and When to Use It?

Structured observation is an observational method that involves carefully looking at specific behaviours within a more controlled and structured setting compared to naturalistic participant observation.

Naturalistic observation is a method where researchers observe and study subjects in their natural or real-life environment, without any manipulation or intervention. This approach allows researchers to gain insights into the behaviours, interactions, and phenomena as they naturally occur without altering the context. Naturalistic observation also aims to capture genuine and unfiltered data, providing a more authentic understanding of the subject under study.

In contrast, structured observation, researchers focus on gathering quantitative data rather than qualitative data. The goal is to quantify and analyse a limited set of behaviours of interest, rather than capturing a comprehensive view of all behaviours.

For example, let's say a researcher is interested in studying classroom behaviour patterns in elementary school students. They develop a structured observation protocol that outlines specific behaviours to be observed, such as raising hands, participating in group discussions, and following instructions. The researcher systematically observes these behaviours during different class sessions, records the frequency of each behaviour, and categorise them according to the predefined criteria. This structured observation helps the researcher quantify and analyse classroom behaviours to gain insights into student engagement and interaction dynamics.

Another example of what this could look like could be in a shopping mall if a researcher is curious about consumer behaviour in a clothing store. They create a structured observation checklist that includes behaviours like trying on clothes, browsing racks, and

interacting with sales staff. The researcher discreetly observes shoppers, noting the occurrence and sequence of behaviours. By using structured observation, the researcher can gather data on consumer preferences, decision-making processes, and the effectiveness of sales strategies in a controlled and organised manner.

In sum, the process of structured observation involves defining specific behaviours to be observed and recorded. Researchers may create a list of target behaviours based on previous research or pilot testing. Observers then categorise participants individually, noting their behaviours and their frequency or duration. Maintaining **inter-rater reliability**, where different observers code behaviours consistently, is essential and can be demonstrated through independent coding by multiple observers (Price et al., 2017).

The Role of Structured Observation in Communication Studies

Structured observation stands as a prominent method within communication studies, offering a systematic and controlled approach to investigating human communication. Here are a few examples that showcase how structured observation can be used in communication research broadly speaking:

- **Nonverbal Communication in Political Debates**: Researchers can use structured observation to analyse the nonverbal behaviours of political candidates during televised debates; categorising and quantifying gestures, facial expressions, and body language to assess the candidates' perceived credibility and effectiveness in conveying their messages.
- **Media Portrayals of Gender Roles in Advertising**: Examining gender representations in advertisements, structured observation can be utilised to code and analyse the frequency

of specific gender-related behaviours, such as stereotypical roles, appearance, and interactions. This allows researchers to uncover patterns in how media reinforces or challenges traditional gender norms.

- **Children's Television Viewing Habi**ts: Structured observation might be employed to track and record the types of television programs children watched, as well as their reactions and behaviours during viewing. This approach can help researchers understand how different genres and content influenced children's engagement and emotional responses.

- **Interpersonal Conflict Resolution in Relationships:** Researchers can observe and code interactions between couples during conflict resolution discussions. By categorising communication behaviours such as active listening, blame attribution, and empathy, insights into the effectiveness of different communication strategies in resolving relationship conflicts can be gleaned.

- **Audience Reactions to Political Speeches:** Structured observation can be used to analyse audience reactions during live political speeches. Observers can record audience behaviours, such as applause, facial expressions, and body language, to assess the level of engagement and emotional responses elicited by the speeches.

- **Social Media Interaction Patterns:** In the context of online communication, researchers can conduct structured observations of social media interactions. They can code and analyse comments, likes, and shares to understand how individuals engage with and respond to different types of online content.

- **Public Speaking Anxiety in College Students:** Structured observation can be applied to assess public speaking anxiety among college students. Researchers can observe and code specific anxiety-related behaviours, such as vocal hesitations, fidgeting, and eye contact avoidance, to measure the level of anxiety displayed during speeches.

- **Parent-Child Communication Patterns:** Structured observation can be utilised to study parent-child communication in a naturalistic home environment. Researchers can code communication behaviours like questions, directives, and affirmations to analyse patterns of interaction and the impact on child development.

These examples illustrate the versatility of structured observation in communication studies, demonstrating its applicability across diverse research topics and contexts. By systematically recording and categorising observable behaviours, structured observation provides researchers with quantitative insights into communication dynamics and contributes to a deeper understanding of various communication phenomena.

Pros and Cons of Structured Observation

Structured observation has its distinct advantages and disadvantages, which can be understood through various communication examples.

Advantages of Structured Observation in Communication Research

Structured observation allows researchers to streamline their efforts, saving valuable time and resources. For instance, imagine a study aiming to understand workplace collaboration. By focusing only on team communication patterns, researchers can efficiently gather data without getting sidetracked by unrelated activities.

Imagine a scenario where researchers want to examine the impact of smartphone usage on social interactions. Structured

observation is useful in such cases by enabling quantitative data collection. Researchers can meticulously quantify instances of phone usage and interaction levels, leading to concrete numerical measurements that lend themselves to statistical analysis. This approach ensures the findings are robust and grounded in objective data collection.

Consider a study exploring the effects of video game violence on aggression. Structured observation offers researchers a controlled environment where they can manipulate variables with precision. By exposing participants to specific game scenarios and monitoring their reactions, researchers gain valuable insights into the causal relationship between exposure and behaviour. This control ensures a focused exploration of the phenomenon.

Let's say researchers are investigating nonverbal cues in romantic relationships. Structured observation's clear protocols and target behaviours make replication a straightforward process. Other researchers can follow the same steps, examining identical behaviours and contexts, to verify the study's reliability and authenticity. This reproducibility enhances the credibility of the findings.

However, structured observation is not without its challenges:

Limitations of Structured Observation in Communication Research

Think of a study assessing consumer purchasing decisions. While structured observation excels at isolating behaviours, it may miss the broader context that influences those behaviours. Researchers might gather precise data on product choices but overlook the nuanced emotional triggers or environmental factors that contribute to those choices, potentially painting an incomplete picture.

Additionally, let's think about researchers studying public

speaking anxiety. Structured observation's-controlled setup may inadvertently induce reactivity – where participants modify their behaviour due to the awareness of being observed. This alteration can distort the authenticity of their responses, casting doubt on the accuracy of the findings and their real-world applicability.

Consider a study as well exploring employee honesty in a controlled work environment. Structured observation necessitates careful ethical deliberation. Researchers must ensure participants' privacy and informed consent, especially in artificial laboratory settings. Adhering to ethical guidelines becomes paramount to safeguard participant well-being and uphold their rights.

In summary, structured observation boasts efficiency, precise measurement, and controlled conditions. However, it might sacrifice external validity, be susceptible to reactivity, overlook contextual richness, and demand vigilant ethical practices. Therefore, when assessing a study's merits, it's crucial to weigh these strengths and weaknesses judiciously.

Field Research: What Is It and When to Use It?

While structured observation aims to be controlled, **field research** is a dynamic and immersive investigative method used by researchers to gather firsthand data and insights directly from real-world settings. This approach involves venturing into the natural environment where the phenomena of interest occur, allowing researchers to observe, interact, and collect data within the context under study. Field research is particularly advantageous when exploring complex, context-dependent phenomena that cannot be fully understood through controlled laboratory experiments or secondary data analysis alone.

For instance, consider a study focused on the behaviour of shoppers in a busy urban market. Researchers embarking on a field research expedition would immerse themselves in the market

environment, observing shoppers' decision-making processes, interactions with vendors, and response to various stimuli. By being physically present in the setting, researchers can capture subtle nuances, such as the influence of cultural factors, social interactions, and situational dynamics on shoppers' behaviours. This level of in-depth understanding and contextual richness would be challenging to attain through other research methods.

Field research is especially valuable in disciplines like anthropology, sociology, and communications, where the intricate interplay of human behaviours, cultural practices, or natural systems requires a holistic and authentic exploration. By stepping out of traditional research settings (i.e. a laboratory) and into the field, researchers can gain valuable insights that contribute to a more comprehensive understanding of the phenomena under investigation.

It is worth noting that fieldwork, participant observation, and ethnography are closely related terms but there are some differences.

Fieldwork is a broad research approach that involves conducting research "in the field," which typically refers to the real-world context where the phenomenon of interest occurs. Fieldwork encompasses a wide range of research methods and activities, including participant observation, interviews, surveys, data collection, and engagement with the community being studied. Fieldwork can involve both qualitative and quantitative data collection and may be used in various research designs.

Participant observation is generally thought of as a specific method within fieldwork that involves the researcher actively engaging with and observing the community, group, or culture being studied. The researcher becomes a participant in the community to gain firsthand experience and insight into their practices, behaviours, and interactions. Participant observation often requires immersing oneself in the daily lives and routines of the participants, allowing the researcher to capture the cultural nuances and social dynamics from an insider's perspective.

Ethnography is a comprehensive research approach that involves prolonged and immersive engagement with a specific cultural group or community. Ethnography aims to provide a detailed and holistic understanding of the culture, beliefs, values, practices, and social interactions of the community being studied. It typically involves participant observation as a central method, but it also encompasses other data collection techniques such as interviews, document analysis, and audiovisual recordings. Ethnography produces in-depth narratives or descriptions of the studied culture and may result in rich monographs or reports.

Going Deeper with Ethnography

The concepts of covert versus overt roles and open versus closed settings in the context of research, particularly ethnographic research, is central to research design.

In a *covert role*, the researcher conceals their true identity or purpose from the participants they are studying. This means that the participants are unaware that they are being observed or studied by a researcher. The researcher remains undercover, observing and collecting data without the participants' knowledge.

For example, an ethnographer is interested in studying workplace dynamics and communication patterns within a corporate office. To avoid altering the behaviour of employees, the researcher poses as an intern or temporary employee and interacts with colleagues without revealing their research intentions. By adopting a covert role, the researcher can observe authentic interactions and behaviours that the awareness of being studied might otherwise influence. This raises major ethical issues associated with respect for persons, a principle discussed in Chapter 5.

A covert role in research methods can be seen as potentially involving an element of deception. A covert role refers to a researcher's hidden or undisclosed identity and purpose when

interacting with participants. This means that participants may not be aware that they are being observed or studied by a researcher. While this approach can sometimes provide more genuine and unbiased insights into natural behaviour, it raises ethical considerations regarding informed consent and transparency. Participants might feel deceived or have their privacy compromised if they later discover the researcher's true role. Researchers using a covert role should carefully weigh the benefits of obtaining authentic data against the potential ethical concerns and be prepared to address them appropriately.

In an *overt role*, the researcher is transparent about their identity and purpose. Participants are aware that they are being studied, and the researcher openly engages with them for research purposes. This approach emphasises ethical transparency and informed consent.

For instance, an ethnographer is researching religious practices in a community. They introduce themselves to community members, explain their research goals, and request permission to observe and participate in rituals. By adopting an overt role, the researcher establishes trust and cooperation with participants, allowing for a more ethical and collaborative research process.

Open versus closed settings can also be significant for research design.

In an *open setting*, the researcher conducts their study in a context where no special permissions or formal access approvals are required to be present in or observe the location. This is often because the space is public, and activities or behaviours being studied are occurring openly, accessible to anyone without restrictions.

For example, a communication researcher might be studying how people use digital signage in a public transit hub, such as a train station. In this open setting, they can observe commuter interactions with the screens, including the types of messages commuters stop to read and how long they engage with specific content. Since the transit hub is a public space where people move

freely and access information without restrictions, the researcher can gather insights without needing special permission to observe behaviour in this environment. This allows the researcher to see authentic interactions as they naturally unfold, providing valuable data on how communication tools like digital signage work in real-time, publicly accessible contexts.

In a *closed setting*, the research occurs in an environment that is more controlled or limited in access. Participants may be selected or recruited specifically for the study, and interactions take place in a confined or controlled space. For instance, an ethnographer is investigating communication dynamics within a therapy group for individuals with social anxiety. The researcher gains permission to observe the group's sessions, and participants are aware of the research. However, the setting is closed in the sense that it involves a specific group with defined objectives, and interactions are limited to the therapy sessions.

In both covert/overt roles and open/closed settings, researchers make deliberate choices based on their research goals, ethical considerations, and the level of influence they want to exert on the research context. Each approach has its own implications for the type of data collected, the authenticity of participant behaviour, and the ethical responsibilities of the researcher.

Finally, ethnographers often adapt their roles throughout the research process based on their evolving understanding of the community and the insights they aim to uncover. Four central roles have been identified.

Complete Participant

In the role of a *complete participant*, the ethnographer fully integrates into the community being studied. They become an active and accepted member of the community, participating in daily activities, ceremonies, events, and interactions. The

ethnographer's involvement is so immersive that they adopt the community's lifestyle and experiences firsthand. This role allows the ethnographer to gain an in-depth understanding of the community's culture, norms, and perspectives.

As an example, a researcher interested in studying a small fishing village decides to become a complete participant. They live among the villagers, engage in fishing activities, share meals, and participate in cultural rituals. By fully integrating into the community, the researcher gains insights into the villagers' way of life, the challenges they face, and the social dynamics that govern their interactions. They do not disclose their identity for fear of influencing others' treatment of them.

In this role, there is sometimes the danger of "deep engagement" ("going native" is a colloquial expression for this, though problematic due to its colonial roots). This process refers to a researcher or an outsider becoming so enmeshed in the culture, lifestyle, or practices of the community they are studying that they begin to adopt the behaviours, beliefs, and perspectives of that community. This term is often used in anthropological and ethnographic contexts, where researchers spend extended periods of time living among the people they are studying.

When someone becomes so involved they may start to adopt the clothing, language, customs, and habits of the community to the point where they appear to be a member of that community. While this level of immersion can provide researchers with valuable insights and a deeper understanding of the culture, it also raises ethical and methodological considerations. Researchers who become too assimilated may unconsciously adopt the biases and perspectives of the community, potentially distorting the research findings. Immersion to the point of adopting behaviours or beliefs can raise ethical concerns about the authenticity of the researcher's identity and their interactions with participants.

Participant-as-Observer

In the role of ***participant-as-observer***, ethnographers engage in community activities to some extent while maintaining a degree of objective observation. They strike a balance between participating in selected activities and documenting their observations. The emphasis is on gathering data through active involvement while still maintaining an observer's perspective.

   As an illustration, a researcher is studying a religious festival in a community. While participating in the festival's rituals and ceremonies, the researcher also takes notes, records conversations, and observes interactions. By being both a participant and an observer, they can capture the emotions, beliefs, and social dynamics surrounding the event while maintaining a critical eye. Participants are aware they are being studied.

Observer-as-Participant

In the role of ***observer-as-participant***, ethnographers primarily focus on observing and documenting community activities, but they may occasionally engage in specific events or interactions. The primary emphasis is on data collection through observation, but limited participation allows for a more nuanced understanding of the context.

   For instance, an ethnographer is studying a classroom in an educational setting. Their primary role is to observe teaching methods and student interactions. They do not participate but would respond to specific questions and exchanges if needed. This limited participation enables the ethnographer to gather more detailed information about classroom dynamics. Participants are aware they are being studied.

Complete Observer

As a ***complete observer***, the ethnographer maintains a stance of detached observation and refrains from actively participating in community activities. Their main focus is on documenting behaviours, interactions, and cultural practices without becoming directly involved.

For example, a researcher is conducting an ethnographic study of street vendors in a bustling market. They position themselves at a distance, discreetly observing vendor-customer interactions, pricing strategies, and communication patterns. By remaining an outsider, the researcher can capture authentic behaviours without influencing or altering the dynamics they are studying. The vendors would not be aware they are being watched.

It's important to note that the choice of role depends on the research goals, the level of immersion required, ethical considerations, and the specific context being studied.

Key Informant

In ethnography, a ***key informant*** is an individual who possesses specialised knowledge about the culture, community, or social group under study. Key informants are often chosen based on their role, expertise, and familiarity with the context being researched. They provide valuable insights, information, and perspectives that can help the ethnographer better understand and interpret the cultural nuances, practices, beliefs, and social dynamics of the community.

Key informants can include community leaders, elders, experts in certain cultural practices, respected members of the community, or individuals who hold significant knowledge about specific aspects of the culture. They serve as valuable sources of information and

can guide the researcher in navigating the cultural landscape, interpreting behaviours, and gaining access to important events or interactions.

For instance, in a study about online social media communities and their impact on mental health, a key informant could be an individual who is not only an active participant in various online groups but also a recognized advocate for mental health awareness. This key informant might have a deep understanding of the community dynamics, the challenges faced by members, and the ways in which communication within these groups affects individuals' well-being. Their insights and personal experiences could provide valuable perspectives that help the researchers gain a more comprehensive understanding of the topic and its implications.

Engaging with key informants is a common practice in ethnography to ensure that the research is well-informed, culturally sensitive, and accurately reflects the complexities of the studied culture or community. Ethnographers often establish rapport and build relationships with key informants to gather meaningful and authentic data during their fieldwork.

The Role of Field Research in Communication Studies

Field research has emerged as a powerful and versatile method within the realm of communication studies, allowing researchers to explore communication phenomena in their natural contexts and capture the dynamic interplay of human interactions. Some examples of how this might work are outlined below:

- **Ethnographic Study of Online Communities:** Researchers can conduct fieldwork within online forums and social media groups to explore how virtual communities communicate,

interact, and form social bonds in digital spaces. This approach can help uncover the unique communication dynamics and shared norms that emerge within these online communities.

- **Observing Political Campaign Rallies**: Field researchers might attend political rallies and campaign events to observe and analyse the communication strategies employed by political candidates. By documenting speeches, audience reactions, and interactions between candidates and voters, researchers can gain insights into persuasive communication techniques and their impact on voter perceptions.

- **Nonverbal Communication in Healthcare Settings:** Communication scholars can conduct field research in hospital waiting rooms and patient-care environments to study the role of nonverbal cues in patient-doctor interactions. By observing body language, facial expressions, and gestures, researchers can assess how these cues contribute to patient satisfaction, understanding, and trust.

- **Media Coverage of Protests**: Researchers might engage in fieldwork by attending and analysing protests, rallies, and demonstrations. By observing media interactions, interviewing protesters, and journalists, and examining news coverage, scholars can investigate how the media frames and communicates social movements and activism to the public.

- **Organisational Communication Observations:** Field research can be employed to study communication within workplaces. Researchers might immerse themselves in organisations to document communication patterns, hierarchy, conflict resolution strategies, and the impact of communication on organisational culture. This approach provides an in-depth understanding of communication dynamics within specific work environments.

- **Cross-Cultural Communication in Tourism:** Scholars might conduct field research in tourist destinations to explore how communication between tourists and locals is influenced by cultural differences. By observing interactions and conducting

interviews, researchers can uncover communication challenges, misunderstandings, and effective strategies for cross-cultural communication.

- **Family Communication Patterns:** Field research within family settings could be used to study communication patterns, rituals, and dynamics. Researchers engage with families over extended periods, observing conversations, conflict resolution, and decision-making processes to understand how communication shapes family relationships.
- **Street Performances and Public Engagement**: Communication researchers have studied street performances, such as busking or public speeches, as forms of communication in urban spaces. By observing audience reactions and analysing performers' communication techniques, researchers can gain insights into public engagement and the impact of spontaneous communication with passersby.
- **Language Use in Multilingual Communities:** Field research might be employed to study communication within multilingual communities. Researchers immerse themselves in neighbourhoods or social groups where multiple languages are spoken to examine language choice, code-switching, and the role of language in identity expression.
- **Social Media Behaviour and Self-Presentation:** Field research within social media platforms could involve analysing user interactions, posts, and comments to understand how individuals construct and present their identities online. Researchers can uncover patterns of self-presentation, communication styles, and the role of social media in shaping perceptions of self and others.

These examples demonstrate the diverse ways in which field research can be applied to investigate communication phenomena across various contexts, highlighting its versatility and contribution to advancing communication studies.

Pros and Cons of Field Research

Field research has many benefits, as well as a set of drawbacks. We'll explore both here.

Benefits of Field Research to Communication Studies

Field research immerses communication scholars in the natural habitats of human interaction bringing with it some enriching benefits, the key to which are summarised below.

By being physically present, researchers can capture the subtleties of language choice, nonverbal cues, and negotiation strategies that are deeply embedded in the cultural fabric. This immersive experience unveils the richness of cross-cultural interactions that might be lost in more controlled settings.

Field research facilitates prolonged engagement, allowing researchers to conduct in-depth interviews and participant observation. This approach enables scholars to unravel the intricate web of emotions, concerns, and communication challenges faced by individuals navigating the healthcare system. The resulting narratives provide a profound understanding of personal experiences that shape communication.

By observing not only the speakers but also the reactions of the live audience, researchers gain insights into the persuasive impact of rhetoric, visual cues, and audience engagement. This firsthand experience offers an unfiltered view of how media messages unfold in real time.

Field research takes communication scholars to the streets, where public discourse converges. Consider a researcher documenting conversations in a local park. By observing the interactions, humour, and spontaneous debates among park-goers,

researchers can discern the fluidity of public discourse and its role in shaping communal identities and shared values.

Field research becomes a vital tool in understanding crisis communication strategies. Imagine researchers embedded within an organisation facing a crisis. By witnessing the immediate responses, press conferences, and internal communications, scholars can scrutinise the effectiveness of crisis communication plans and the alignment between organisational rhetoric and action.

In the digital age, field research extends into virtual realms. Scholars dive into online communities, participating and observing interactions within digital spaces. Picture a researcher exploring a gaming forum. This approach unveils the nuances of online communication, including anonymity, emoticon use, and the evolution of digital subcultures.

Limitations of Field Research to Communication Studies

Field researchers are active participants in the research process, and their presence can introduce subjectivity and potential bias. Personal perspectives, beliefs, and interpretations might influence data collection, observation, and analysis. This subjectivity can compromise the objectivity and reliability of findings, particularly when researchers are emotionally invested or have preconceived notions about the subject of study.

Field research demands a significant investment of time, effort, and resources. Researchers need to allocate substantial periods for data collection, participant engagement, and data analysis. Long-term fieldwork can strain research budgets and schedules, potentially limiting the scope and scale of the study.

Field researchers may face ethical challenges related to privacy and informed consent. Immersing oneself in participants' lives or sensitive contexts may intrude upon personal boundaries.

Maintaining ethical standards and ensuring participants' well-being become critical considerations, particularly in studies involving vulnerable populations or intimate settings.

Findings from field research are often context-specific and may not easily generalise to broader populations or settings. While rich in-depth insights can be gained, the uniqueness of the context can restrict the applicability of findings to other situations.

The mere presence of a researcher can trigger changes in participants' behaviour, a phenomenon known as the "***Hawthorne effect.***" Individuals might modify their communication patterns, attitudes, or actions when aware of being observed. This reactivity can distort the authenticity of data and undermine the study's validity, especially when studying natural, unmediated behaviour.

External factors such as unexpected events, changing social dynamics, or environmental conditions can impact data collection and introduce confounding variables. Researchers need to adapt to evolving circumstances, which can sometimes disrupt the research process.

The wealth of data generated through field research can lead to data overload and analysis complexity. Researchers might struggle with managing and interpreting vast amounts of qualitative data, making it challenging to identify meaningful patterns, themes, and trends. Ensuring rigour in data analysis becomes crucial to draw accurate and valid conclusions.

In sum, field research should be praised for its ability to capture contextual intricacies, delve into personal narratives, dissect media events, unearth public discourse, navigate crises, and explore digital spaces uniquely. Yet, field research isn't devoid of challenges. Researchers must navigate subjectivity, ethical considerations, limited generalizability, reactivity, data analysis complexities, unpredictable factors, and their own positioning in the studied environment. A comprehensive understanding of these disadvantages is essential for researchers to make informed decisions and address potential limitations when employing field research methodologies.

How do Fieldwork and Journalism Compare?

Fieldwork and investigative journalism share similarities in their investigative nature and hands-on approach, but they also have distinct characteristics and objectives. Let's compare these two practices.

In terms of similarities both fieldwork and investigative journalism involve deep and thorough exploration of a subject. Researchers and journalists immerse themselves in the context to gather detailed information and insights.

Additionally, both practices require direct engagement with the subject of study. Field researchers and investigative journalists actively interact with individuals, communities, or environments to collect firsthand data.

Moreover, both fieldwork and investigative journalism aim to uncover hidden truths, expose injustices, or reveal aspects of a situation that may not be readily apparent.

Both practices also involve ethical considerations regarding informed consent, privacy, and responsible reporting. Researchers and journalists must navigate sensitive issues while maintaining the well-being and rights of those involved.

Finally, both fieldwork and investigative journalism can have a real-world impact by bringing attention to important issues, driving change, or influencing public perception.

Despite these commonalities, there are some differences which are summarised below.

Purpose and Audience

The primary purpose of fieldwork is to gather insights and data for academic or research purposes. The audience is often fellow researchers, scholars, or those interested in a specific field of study.

Investigative journalism aims to inform the public and hold individuals, organisations, or institutions accountable. The audience is the general public, and the reporting is typically intended to generate awareness and provoke action.

Medium of Presentation

The findings from fieldwork are typically presented in academic papers, research articles, or conferences. The focus is on contributing to the body of knowledge within a specific discipline.

Investigative journalism findings are presented through news articles, documentaries, or multimedia platforms. The emphasis is on making information accessible and engaging to a broader audience.

Narrative Style

The reporting style in fieldwork is often more formal and structured, focusing on research methodologies, data analysis, and theoretical frameworks.

Investigative journalism employs storytelling techniques, emphasising narratives, personal stories, and emotional connections to engage readers or viewers.

Funding and Resources

Field research is often funded through academic institutions, research grants, or personal funding. Researchers may have more control over the scope and direction of their projects.

Investigative journalism projects are typically funded by media organisations or foundations supporting journalistic endeavours. Journalists may need to balance the demands of editorial teams and financial constraints.

Scope and Focus

Fieldwork can cover a wide range of topics within various academic disciplines, and the research questions may be broader and exploratory in nature.

Investigative journalism tends to focus on specific issues or cases to expose wrongdoing, corruption, or social injustices.

In sum, while fieldwork and investigative journalism share commonalities in their investigative approach, they differ in terms of purpose, audience, presentation style, funding, and scope. Both practices contribute to our understanding of the world and play important roles in driving awareness, change, and accountability.

Reflection Question

How do the objectives, presentation styles, and intended audiences of fieldwork in communication studies differ from those of investigative journalism? In what ways do these practices diverge in their approach and impact on society, and how do they each contribute to our understanding of the world?" Document your thoughts in a 200–300-word post.

Key Chapter Takeaways

- By systematically recording and categorising observable behaviours, structured observation provides researchers with quantitative insights into communication dynamics and contributes to a deeper understanding of various communication phenomena.
- Structured observation boasts efficiency, precise measurement, and controlled conditions. However, it might sacrifice external validity, be susceptible to reactivity, overlook contextual richness, and demand vigilant ethical practices. Therefore, when assessing a study's merits, it's crucial to weigh these strengths and weaknesses judiciously.
- Field research is a strong and flexible method in communication studies, letting researchers study communication in real-life settings and understand how people interact.
- In both covert/overt roles and open/closed settings, positionality (Complete Participant/ Participant-as-observer/ Observer-as-participant/Complete Observer), researchers purposefully decide their approach based on research aims, ethics, and desired impact on the study environment.
- Field research is a strong and flexible method in communication studies, letting researchers study communication in real-life settings and understand how people interact.
- Field research's capacity to uncover contextual nuances, analyse personal stories, decode media phenomena, and navigate diverse environments enhances communication studies. However, challenges such as subjectivity, ethics, limited generalizability, and data complexities require careful consideration. Researchers must acknowledge and address these drawbacks to make informed decisions in their field research endeavours.

- Fieldwork and investigative journalism, while sharing investigative methods, diverge in their objectives, target audiences, presentation styles, financial support, and research scope. Yet both practices still significantly contribute to our comprehension of the world, serving crucial roles in fostering awareness, instigating change, and upholding accountability.

Key Terms

Structured Observation: Refers to a method of data collection in which researchers carefully design and plan observations to focus on specific behaviours, events, or interactions. This approach involves predefined categories or criteria to guide the observations, allowing for systematic data collection and analysis.

Naturalistic Observation: A method where researchers observe and study subjects in their natural or real-life environment, without any manipulation or intervention.

Interrater reliability: Refers to the degree of agreement or consistency between two or more independent observers or raters when assessing the same phenomenon or data. It is a measure of the reliability or accuracy of their judgments and ensures that the observations or evaluations made by different raters are similar or aligned.

Field Research: Involves conducting studies and collecting data in real-world settings, outside of controlled environments like laboratories. Researchers directly engage with participants, communities, or environments to gather authentic and contextual information.

Ethnography: A qualitative research method that involves immersive and prolonged engagement with a specific culture or community to gain a comprehensive understanding of their practices, beliefs, social dynamics, and everyday life. Ethnographers

often participate in the community's activities and interactions to capture the cultural context.

Participant Observation: A research technique where the researcher becomes an active participant within the community or group being studied. By engaging in activities and interactions, the researcher gains firsthand insight into the culture and behaviour of the participants.

Covert role: Refers to a researcher's hidden or undisclosed identity and purpose.

Overt role: Involves transparently revealing the researcher's identity and objectives to participants.

Open setting: A research environment where the researcher can observe and collect data without requiring special permissions or formal access approvals.

Closed setting: Involves restricted access or a controlled environment for data collection.

Key Informant: An individual who possesses specialised knowledge or insights about a community, culture, or phenomenon under study. Researchers often rely on key informants to provide valuable information and context.

Complete Participant: A researcher who fully immerses themselves in the community or culture being studied, actively engaging in their activities, interactions, and rituals to gain an insider's perspective.

Deep Immersion (sometimes labelled problematically as "going native"): Refers to a researcher becoming deeply immersed in the culture or community they are studying to the point where they adopt the behaviours, beliefs, and perspectives of that community.

Participant-as-Observers: Researchers who engage in both participation and observation in the community being studied, striking a balance between being an active participant and maintaining an observer's perspective.

Observer-as-Participant: Focus on observing and documenting community activities while occasionally engaging in specific interactions or events.

Complete Observer: A researcher who maintains a stance of detached observation without actively participating in community activities, focusing solely on documenting behaviours, interactions, and cultural practices.

Hawthorne Effect: Refers to the phenomenon where individuals modify their behaviour or performance when they know they are being observed, often resulting in improved outcomes due to the awareness of being studied.

Further Reading and Resources

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10. Other Methods (Experiments and Content Analysis)

Learning Objectives for Chapter

- Identify essential components of experiments and the significance of thoughtful consideration when choosing and designing experimental studies in communication research.
- Recognize the benefits of experiments and its potential drawbacks.

- Understand why content analysis is an unobtrusive method and identify its value for studying textual, visual, or auditory content.
- Differentiate between manifest (explicit) and latent (underlying) insights achievable through content analysis.
- Recognise the strengths and limitations of content analysis.

Introduction

Two methods stand out as essential in the realm of communication research: experiments and content analysis. Each offers distinct avenues for investigating communication phenomena.

In this chapter, the fundamental principles, application, advantages, and limitations of these methods will be explored. Hopefully, in doing so you will better appreciate how both methods contribute to communication studies and how you might critique research studies that use these methods as either a media professional or as a critical consumer of research.

Experiments: What are they and when should you use them?

Experiments stand as one of the foundational methods in communication research, offering a rigorous framework for investigating cause-and-effect relationships and uncovering insights into how various factors influence communication processes and outcomes. This chapter delves into the fundamental principles of experiments, their key components, and the scenarios in which they are most appropriately employed within the realm of communication studies.

Understanding Experiments

An ***experiment*** is a systematic research design in which the researcher manipulates one or more independent variables to observe their effect on a dependent variable, while controlling for potential confounding variables. The primary aim of experiments is to establish causal relationships between variables, allowing researchers to draw conclusions about the impact of specific variables on communication phenomena.

There are several key components to all experiments, some of which we have touched upon in previous chapters (especially Chapter 3).

Independent variables are the factors that the researcher manipulates to observe their effect on the dependent variable. In communication research, independent variables could range from message content and media format to interpersonal variables or communication contexts.

The dependent variable is the outcome or response that the researcher measures to assess the effects of the independent variable. It represents the variable that is expected to change as a result of the experimental manipulation.

Experiments often involve a control group that serves as a baseline for comparison. This group does not receive the experimental treatment and helps researchers determine whether any observed effects are indeed due to the independent variable.

In medical research the control group receives a placebo. A placebo is a substance or treatment that has no therapeutic effect on a person's condition, but it may produce a psychological or physiological response due to the individual's belief in its effectiveness.

Placebos are used to study the true effects of a treatment by comparing the outcomes of the active treatment group with those of the placebo group. The ***placebo effect*** refers to the phenomenon where a person experiences a perceived improvement in their

condition due to their belief in the efficacy of the placebo, even though the placebo itself does not have any inherent therapeutic properties. The use of placebos in clinical trials helps ensure that the observed benefits of a treatment are not solely a result of the placebo effect and can provide a more accurate assessment of the treatment's effectiveness.

All experiments have an *experimental group*, or *active treatment group*. This group receives the experimental treatment or manipulation, allowing researchers to observe the effects of the independent variable.

A key component of all experiments is *random assignment*. Participants are assigned to either the control group or the experimental group randomly, reducing the likelihood of bias and ensuring that any differences between the groups are not systematically related to other variables.

Blinding, also known as masking, is a crucial concept in experimental design that helps minimise bias and ensure the validity of research results. Blinding involves concealing certain information from participants, researchers, or both, to prevent conscious or unconscious influences on the study's outcome. The goal of blinding is to enhance the objectivity and accuracy of the experiment's results by reducing potential sources of bias.

There are different types of blinding:

Single-Blind: In a single-blind study, either the participants or the researchers (or sometimes both) are unaware of certain critical information. For example, in a single-blind drug trial, participants might not know whether they are receiving the actual medication or a placebo, while the researchers administering the treatment and collecting data are aware.

Double-Blind: In a double-blind study, both the participants and the researchers are unaware of the specific treatment conditions. This type of blinding is particularly effective in preventing both unintentional and intentional biases. Double-blind designs are commonly used in clinical trials and experiments involving human subjects.

Triple-Blind: In some cases, a triple-blind design may be used, where not only participants and researchers, but also data analysts, are unaware of the treatment conditions. This further safeguards against biased data analysis.

Blinding is essential because it helps prevent various types of bias, such as the placebo effect (where participants' expectations influence their responses), experimenter bias (where researchers' expectations influence their observations), and participant bias (where participants modify their behaviour due to knowledge of their treatment condition).

Blinding can be applied in various types of experiments, including clinical trials, psychological studies, and experiments involving animals. While blinding is not always possible or practical in all research scenarios, researchers make every effort to implement blinding procedures whenever feasible to enhance the integrity and reliability of their findings.

In sum, blinding is a strategy used in experimental design to reduce bias by keeping key information hidden from participants, researchers, or both, thus contributing to more objective and credible research outcomes.

Pre-tests and post-tests hold significant importance within the realm of experimental research, serving as fundamental pillars in the process of investigating interventions, treatments, or changes over time.

Pre-tests, conducted prior to the implementation of an intervention, establish the initial state of participants, providing a reference point against which post-intervention outcomes can be compared. By capturing individual differences and characteristics at the outset, pre-tests offer a means to discern the true effects of the intervention, guarding against potential confounding variables.

Subsequently, *post-tests*, administered after the intervention, reveal the extent of changes or outcomes resulting from the intervention.

The juxtaposition of pre- and post-test data enables researchers to discern whether observed alterations can be credibly attributed

to the intervention itself. This controlled comparison bolsters internal validity, facilitating the establishment of causal relationships between the intervention and observed changes.

Additionally, pre-tests and post-tests empower statistical analyses that ascertain the significance of intervention effects, supporting the formulation of robust conclusions. In essence, these measures not only provide a quantifiable means of assessing progress and understanding long-term effects but also enhance the rigour and reliability of experimental design by enabling researchers to discern the true impact of their interventions.

Classic Experiments and Changes in Design

As noted, a key feature of a classic experiment is***random assignment***, where participants are assigned to different experimental conditions by chance, ensuring that groups are comparable at the outset. However, this is not always possible necessitating a quasi-experimental design.

A quasi-experiment is often used when researchers are unable to employ random assignment due to ethical or practical reasons, yet they still want to investigate the effects of an independent variable on a dependent variable. Unlike a classic experimental design, a quasi-experiment lacks full randomisation, which can introduce potential biases.

Researchers may choose a quasi-experiment when manipulating the independent variable in a controlled manner is essential, even if they cannot assign participants randomly.

Imagine a communication researcher is interested in studying the effects of a new public speaking training program on participants' self-confidence and public speaking skills. The researcher wants to compare the participants who voluntarily enrol in the training program (Group A) with a group of individuals who do not participate (Group B).

However, the researcher faces ethical challenges in randomly assigning individuals to the training program or the control group. Randomly assigning participants could potentially lead to feelings of disappointment or missed opportunities for skill enhancement among those assigned to the control group.

To address this ethical concern, the researcher decides to use a quasi-experimental design. Participants are allowed to self-select into either the training program or the control group based on their own interest and availability.

The researcher carefully matches participants from both groups based on factors such as age, prior public speaking experience, and communication apprehension levels. This matching process helps ensure that the two groups are comparable and reduces potential biases.

Both groups undergo pre-assessment measurements of their self-confidence and public speaking skills before the training program begins. The training program group receives intensive public speaking workshops, coaching sessions, and practice opportunities over a designated period.

After the training program concludes, both groups are assessed again using the same measurements. The researcher then compares the changes in self-confidence and public speaking skills between the two groups.

While the quasi-experimental design allows the researcher to investigate the impact of the training program, it's important to acknowledge that there are limitations. Without random assignment, there may be underlying differences between the groups that could affect the outcomes. Additionally, the lack of randomisation limits the researcher's ability to establish a direct cause-and-effect relationship between the training program and the observed improvements.

In this quasi-experimental example, the researcher navigates ethical concerns by allowing participants to choose their group, thus respecting their autonomy while investigating the effects of the public speaking training program in a responsible manner.

There are also instances when either a pretest or post-test are not possible, requiring an adjustment on the researcher's part and increasing less reliability to the research findings. An experiment conducted without a pretest is typically referred to as a "post-test-only design" or simply a "post-test design." In this type of experimental design, researchers only measure the dependent variable (the outcome) after the intervention or treatment has been applied to the participants. The absence of a pretest means that there is no baseline measurement or initial data collected before the intervention.

When Are Experiments Used in Communication Research?

Experiments are particularly useful in communication research when researchers aim to establish causal relationships, test hypotheses, and explore the effects of specific variables under controlled conditions. Here are some scenarios in which experiments are well-suited:

- **Media Effects:** Experiments can examine how different media formats, messages, or content impact audiences' attitudes, perceptions, and behaviours. For instance, researchers might investigate how exposure to violent media influences aggression levels in individuals.
- **Interpersonal Communication:** Experiments can help unravel the dynamics of interpersonal interactions. Researchers might explore how nonverbal cues affect the perception of trustworthiness in face-to-face communication.
- **Message Framing:** Communication researchers can use experiments to investigate the effects of message framing on persuasion and attitude change. For example, how does framing health messages in terms of gains versus losses impact

people's intentions to adopt healthy behaviours?

- **Media Literacy**: Experiments can assess the effectiveness of media literacy interventions in enhancing individuals' critical thinking skills and their ability to decode and evaluate media messages.
- **Public Opinion:** Experiments allow researchers to explore the impact of different message frames on public opinion formation, helping to understand how political or social issues are perceived and interpreted by the public.

In sum, experiments are a powerful tool in communication research for establishing causal relationships, testing hypotheses, and examining the effects of variables on communication processes and outcomes. By manipulating independent variables and observing their impact on dependent variables, researchers can gain valuable insights into the complex dynamics of human communication and when they aim to provide empirical evidence to inform communication theories and practices.

Pros and Cons of Experiments

Experiments hold a significant place in the toolkit of communication researchers, offering a structured approach to investigate cause-and-effect relationships and test theoretical hypotheses. While their strengths make them indispensable for certain inquiries, their limitations require careful navigation to ensure the validity and applicability of the findings.

Strengths of Experiments in Communication Research

Experiments excel in establishing causal relationships between variables. By manipulating an independent variable and observing its impact on a dependent variable while controlling other factors, researchers can confidently attribute observed changes to the manipulated factor. For instance, an experiment can explore the impact of violent video games on aggressive behaviour by randomly assigning participants to play either violent or non-violent games.

Experiments offer an exceptional level of control over extraneous variables, reducing the potential for confounding influences on the results. This control enhances the internal validity of the study. For instance, in a study examining the effects of persuasive messages on attitudes towards a political issue, researchers can control factors like message content, timing, and delivery method.

The controlled nature of experiments allows them to be replicated under similar conditions by other researchers. This replication strengthens the reliability and robustness of research findings. For example, if a study reveals that humour in advertisements leads to higher recall rates, other researchers can replicate the experiment to confirm the effect.

Experiments often involve meticulous measurement and data collection techniques, leading to precise and reliable outcomes. This precision enhances the credibility of the research. For instance, in a study investigating the impact of font size on reading comprehension, researchers can precisely manipulate font sizes and measure comprehension scores.

Experiments play a pivotal role in testing and refining theoretical frameworks. By systematically examining the interactions between variables, experiments contribute to developing and modifying communication theories. For example, an experiment on the impact of nonverbal cues in interpersonal interactions can inform and shape theories of nonverbal communication.

Limitations of Experiments in Communication Research

Experiments are often conducted in controlled environments, potentially stripping away the complexities of real-world contexts. This artificial setting can limit the generalisability of findings to everyday communication situations. For instance, an experiment on face-to-face communication dynamics may not fully capture the nuances of online interactions.

Some experimental manipulations may raise ethical dilemmas, such as deceiving participants or exposing them to potentially harmful stimuli. Ethical considerations can pose constraints on experimental design and implementation. For example, an experiment studying the effects of subliminal messaging may face ethical objections due to potential harm or lack of informed consent.

Participants' awareness of being in an experiment can lead to altered behaviour or responses, skewing the results. This phenomenon, known as "***demand characteristics***," can introduce bias if participants modify their behaviour to align with perceived expectations. For example, participants in a study on persuasion techniques may change their responses to align with the presumed aims of the study.

Experiments are best suited for investigating specific cause-and-effect relationships and may not be appropriate for exploring broader or complex phenomena. Long-term trends or multifaceted interactions may be challenging to replicate in controlled settings. For instance, studying the long-term impact of media exposure on public opinion may be challenging within the confines of an experiment.

Experiments demand resources, including time, funding, and specialised equipment. Recruiting and retaining participants, particularly in longitudinal experiments, can be demanding. Additionally, the controlled setting may not mirror real-world

conditions accurately. For example, conducting an experiment exploring the effects of media multitasking on cognitive performance may require sophisticated technology and a sizable participant pool.

While experiments enable the manipulation of variables, certain variables may be ethically or practically challenging to manipulate. This restriction limits the research questions that can be addressed through experiments. For instance, studying the effects of family communication patterns on long-term relationship satisfaction may not be feasible through experimental manipulation.

The presence and behaviour of the experimenter can inadvertently influence participant responses, introducing bias into the results. The experimenter's demeanour, instructions, or unintentional cues can affect participant behaviour. For example, an experimenter's enthusiasm may unintentionally influence participants' engagement levels.

Experiments in communication research offer invaluable strengths in establishing causal relationships and refining theories. However, their limitations related to artificiality, generalisability, ethics, demand characteristics, and practical constraints require thoughtful consideration. Researchers must weigh these factors when choosing and designing experimental studies, ensuring the integrity and relevance of their findings in the complex realm of communication.

Unobtrusive Methods

Unobtrusive research refers to methods of data collection that do not interfere with the subjects under study. Both qualitative and quantitative researchers use unobtrusive research methods. A unique quality about unobtrusive methods is that they do not require the researcher to interact with the people he or she is studying. While this may seem odd, humans leave ample evidence of

their behaviours that are potential sources of data to a researcher. For example, worn paths, trash, printed paper, etc.

As with all methods, unobtrusive methods come with their own unique set of benefits and drawbacks. In this section, we will explore these pros and cons of one unobtrusive method particularly common in communication studies: content analysis.

Content Analysis: What Is It and When to Use It?

Content analysis is a robust method frequently employed in research, particularly in fields like communication studies, sociology, and media studies. It involves systematic and objective examination of the content present in various forms of communication, such as texts, images, audio, and video. Through this method, researchers extract valuable insights, patterns, and meanings from the content. Content analysis offers a structured framework to decipher both explicit and underlying themes present within the data. It can be both qualitative and quantitative.

When to Use Content Analysis:

- **Exploring Communication Patterns:** Content analysis is an ideal choice when researchers aim to uncover prevalent communication patterns within a specific context. For instance, it can be used to investigate how news media frames political events, how social media conversations unfold during crises, or how advertisements portray certain social issues.
- **Studying Cultural Representations:** When studying the depiction of cultural norms, values, and identities in various media forms, content analysis proves invaluable. Researchers can analyse films, TV shows, music lyrics, or print media to

discern how these cultural elements are constructed, reinforced, or challenged.

- **Assessing Public Opinion:** Content analysis is often employed to gauge public sentiment and opinions present in online forums, comment sections, and social media platforms. Researchers can quantify the frequency and tone of certain keywords or expressions to comprehend public discourse on specific topics.
- **Exploring Historical Trends:** When delving into historical contexts, content analysis enables researchers to trace shifts in societal attitudes, ideologies, and discourses over time. By analysing archived newspapers, documents, and media artefacts, they can discern changing narratives and prevailing beliefs.
- **Comparative Studies:** Content analysis facilitates comparative studies, allowing researchers to examine differences or similarities in content across various sources, time periods, or cultural contexts. For instance, researchers might compare how gender roles are portrayed in advertisements from different decades.
- **Exploring Media Bias**: Content analysis is instrumental in uncovering biases within media coverage. Researchers can assess how news outlets portray different events, individuals, or groups, and identify any patterns that indicate bias or selective reporting.
- **Understanding Symbolism and Semiotics:** Content analysis is well-suited for uncovering symbolic meanings and semiotic codes embedded in communication. Researchers can dissect visual symbols, metaphors, and signs to reveal their cultural significance and implications.

In summary, content analysis serves as a powerful tool for researchers aiming to uncover patterns, meanings, and influences present within various forms of communication. Its versatility and structured approach make it suitable for a wide range of research

objectives, from studying media representations to examining public discourse and tracking historical changes in societal narratives.

Typically, in a content analysis, primary sources are studied. *Primary sources* are original pieces of data that have *not* already been analysed. On occasion, a researcher may study secondary sources instead, which are texts that *have* been previously evaluated. In instances where **secondary sources** are examined, the researcher usually concentrates on the process by which the original presenter of data reached his conclusions or on the choices that were made in terms of how and in what ways to present the data.

The Difference Between Primary and Secondary Data

A fundamental principle of content analysis involves the examination of primary sources, which represent the unexplored, raw data that forms the foundation of any analysis. These primary sources encompass a wide array of materials, ranging from newspaper articles and television broadcasts to social media posts and advertisements.

For instance, let's consider an example from political communication research. A researcher interested in understanding media portrayal of political candidates during an election might conduct a content analysis of news articles from different sources. By scrutinising these primary sources, the researcher gains access to unaltered data, allowing for a comprehensive examination of the language used, the framing of issues, and the overall tone of coverage surrounding each candidate.

However, there are scenarios where delving into secondary sources becomes advantageous. These secondary sources are texts that have undergone previous analysis, which might involve

interpretations, coding, or thematic categorisations by other researchers. In the context of communication research, analysing secondary sources can provide insights into trends, patterns, or evolving perspectives within the academic discourse.

Imagine a scenario where a communication researcher is exploring the representation of gender roles in television sitcoms. Instead of investigating the original episodes themselves, the researcher might turn to previously conducted content analyses of these sitcoms. By doing so, they can assess the methodologies employed by earlier researchers, understand the criteria used for coding and categorisation, and critically evaluate the conclusions drawn from the data.

When examining secondary sources, researchers often delve into the process through which the original data presenter arrived at their conclusions. They might assess the rigour of the coding scheme, the consistency of the interpretations, and any potential biases that could have influenced the analysis. Additionally, researchers may closely scrutinise the choices made in terms of data presentation – whether visualisations, graphs, or narrative summaries – to grasp how the findings were effectively communicated to the audience.

The Difference Between Qualitative and Quantitative Content Analysis

Quantitative content analysis is a systematic research method used to quantify the presence of certain words, themes, or concepts within qualitative data. This approach involves counting and measuring occurrences to identify patterns and relationships statistically. It is often used in media studies, communication research, and other fields to analyse large volumes of textual or visual data.

A researcher conducting a quantitative content analysis might

examine the frequency of specific keywords or topics in news articles about climate change over a decade. By counting the occurrences of terms like "global warming," "renewable energy," and "carbon emissions," the researcher can track how media coverage has evolved over time. This analysis can reveal trends in public discourse and the media's role in shaping public perception of climate issues.

In contrast qualitative content analysis, on the other hand, focuses on interpreting and understanding the underlying meanings, themes, and patterns within textual data. This approach involves a more in-depth examination of the content to uncover the context, subtext, and nuances that quantitative methods might miss. It is widely used in social sciences, humanities, and communication studies to explore complex phenomena and gain deeper insights.

A researcher might analyse interview transcripts from a study on how teenagers perceive social media's impact on their self-esteem. Through open and axial coding, the researcher identifies themes such as "positive feedback," "negative comparisons," and "peer pressure." By interpreting these themes, the researcher can understand how social media interactions affect adolescents' self-perceptions and mental health, providing a rich, nuanced view of the issue.

Both quantitative and qualitative content analysis are valuable in communication studies, each offering unique strengths. Quantitative content analysis provides a broad overview by quantifying data, making it possible to identify trends and patterns across large datasets. Qualitative content analysis, in contrast, delves deeper into the content to reveal the meanings and contexts behind the data, offering a richer understanding of complex issues. Researchers often use these methods of complementarity to provide a comprehensive analysis of communication phenomena.

Analysis of Unobtrusive Data Collected

After gathering unobtrusive data in communication studies, the subsequent phase entails a systematic analysis to unearth valuable insights. A widely utilised technique in this analysis is coding (see Chapter 8), which aids researchers in identifying meaningful patterns within their observations. This coding process can be approached through various methods, each tailored to the specific nature of the data and research objectives.

For instance, imagine a communication study that aims to understand media portrayals of gender roles in television commercials. Researchers may collect a dataset of commercials and then embark on coding. In this context, coding could involve categorising different types of gender representations, such as traditional stereotypes, progressive portrayals, or instances of role reversal. By systematically labelling and categorising these representations, researchers can quantitatively analyse the prevalence of each type and draw meaningful comparisons between different advertisements or time periods.

Another illustrative example lies in the analysis of social media interactions to study the spread of misinformation during a public health crisis. Here, researchers might collect a dataset comprising tweets, comments, and shared articles related to the crisis. Through coding, they can identify recurring themes, sentiment patterns, and key narratives. **Manifest content** coding could involve categorising the explicit claims made in each post, while **latent content coding** might delve deeper to uncover the underlying emotions or intentions driving the dissemination of misinformation.

Field notes and code sheets also play a pivotal role in unobtrusive data analysis. Imagine a study examining public behaviour in a park, focusing on social interactions and recreational activities. Researchers may take field notes detailing the locations, group dynamics, and activities observed. These notes could then be coded

to extract patterns such as the most frequented areas, the types of games being played, and the diversity of social interactions.

Content analysis, a cornerstone of unobtrusive research in communication studies, offers a robust method to explore different dimensions of collected data. Suppose researchers are investigating political discourse in news articles during an election season. Content analysis enables them to scrutinise the manifest content, encompassing the frequency of certain political keywords, the tone of language used, and the coverage of various candidates. Meanwhile, delving into latent content through content analysis could reveal the underlying framing and narrative structures that influence public perceptions and opinions.

By employing coding techniques, field notes, and code sheets, researchers can systematically unveil the multifaceted layers of meaning embedded within their collected data. Through content analysis, both manifest and latent content can be examined, shedding light on explicit representations and deeper insights that contribute to a comprehensive understanding of the research subject.

Now that we have looked at how the unobtrusive data from content analysis might be analysed, let us consider the pros and cons of using content analysis as a method.

Pros and Cons of Content Analysis

In the realm of communication research, the study of content holds a pivotal role in unravelling the intricacies of human interaction, media influence, and societal dynamics. Content analysis, a rigorous and structured methodology, serves as a powerful tool to decipher the messages, themes, and patterns embedded within various forms of communication. By systematically analysing textual, visual, or auditory content, researchers can extract valuable insights, unveil

hidden narratives, and shed light on the complex interplay between media, society, and culture.

Like any methodology, content analysis offers distinct advantages that empower researchers to decipher communication phenomena in a systematic and quantifiable manner. However, it is not without its limitations, which prompt careful considerations in its application and interpretation.

Strengths of Content Analysis in Communication Research

Content analysis offers a structured and systematic approach to examining large volumes of textual, visual, or auditory content. Researchers can analyse data systematically, uncovering patterns and themes that might be overlooked through casual observation. For example, when researching news coverage on climate change using content analysis, investigators can systematically identify recurring themes, messaging strategies, and shifts in public discourse over time. This method provides a comprehensive overview of how the topic is presented and discussed in the media.

Content analysis also allows for the quantification of textual or visual elements, enabling researchers to measure frequencies, distributions, and associations. This quantitative data can provide valuable insights into the prevalence of certain themes or representations. As an illustration, in a study of gender portrayal in advertisements, content analysis can quantify the ratio of male to female characters, as well as identify patterns in their roles, attributes, and behaviours. The data obtained helps researchers objectively assess gender representation trends.

Additionally, researchers can use content analysis to explore changes and trends over time, making it a valuable tool for studying historical shifts, media evolution, and the impact of social change on communication content. For instance, by evaluating political

speeches from different eras using content analysis, researchers can trace the evolution of political rhetoric and discourse, shedding light on how language and messaging have adapted to reflect societal changes and challenges.

Content analysis enables comparisons between different media sources, genres, or cultures, facilitating cross-cultural and cross-platform examinations of communication patterns and trends. Conducting a cross-cultural analysis of children's cartoons through content analysis can unveil cultural variations in themes, values, and character portrayals. This approach helps researchers understand how media content reflects and influences cultural norms.

Content analysis eliminates researcher bias during data collection, as researchers directly explore existing texts or media artefacts, reducing the potential for subjective interpretation at the data collection stage. When studying public sentiment on social media using content analysis, researchers can see users' comments and posts directly, gaining insights into their opinions and emotions without imposing researcher influence.

Content analysis does not require ethics approval since you are not working with human subjects which can reduce the time required to complete a project.

Weaknesses of Content Analysis in Communication Research

Despite the aforementioned strengths, content analysis may lack context or depth, as it focuses on surface-level content. Contextual factors that influence media production and reception, such as audience interpretation and cultural nuances, may not be fully captured. As an example, looking at the headlines in news articles using content analysis might provide insights into framing techniques, but it may overlook the broader historical, political,

and cultural context that shapes the media coverage and influences public perception.

Moreover, though there are attempts at objectivity, the process of coding and categorising content may involve subjectivity and interpretive judgments, leading to potential variations in results among different researchers. For instance, in the content analysis of movie reviews, interpreting the tone or sentiment expressed in the reviews may involve subjective assessments by coders, potentially leading to differing interpretations and conclusions.

Content analysis focuses on the producer's side and may overlook audience reception and interpretation, which can vary widely and affect the meaning of media content. To illustrate when evaluating political cartoons using content analysis, researchers might miss the diverse ways in which different audiences interpret and respond to the intended messages, leading to an incomplete understanding of their impact.

Researchers are also constrained by the availability of existing content for analysis, which may not fully capture all facets of a phenomenon or issue. As an example, when analysing media coverage of a specific event through content analysis, researchers may be limited to the sources that are accessible through library databases, potentially missing out on alternative perspectives or voices that are not represented in the available data (such as blog posts).

Content analysis can be time-consuming, requiring careful coding, analysis, and interpretation, particularly when dealing with extensive datasets. Coding a large dataset of social media posts to understand public sentiment towards a political issue using content analysis may require significant time and resources to ensure accurate and comprehensive analysis, though many Artificial Intelligence tools are becoming available to facilitate this process. For example, more. For example, [Speak Ai Tools](#) has created a number of free tools to let researchers analyse and learn from multi-modal data including audio.

In conclusion, content analysis in communication research offers

strengths such as systematic analysis, quantitative insights, historical examination, comparative studies, and unbiased data collection. However, its weaknesses include the potential lack of context, subjectivity in coding, limited understanding of audience reception, dependence on available data, and the time-intensive nature of the process. Researchers must carefully consider these strengths and weaknesses when deciding to employ content analysis, taking into account its suitability for the research goals and context.

Reflection Question

What ethical considerations might arise when employing content analysis as an unobtrusive research method, especially when dealing with sensitive or private information found in texts, images, or other media? Document your thoughts in a 200–300-word post.

Key Chapter Takeaways

- Experiments are a foundational method in communication research that provide a rigorous framework for investigating cause-and-effect relationships. Researchers manipulate independent variables to observe their effects on dependent variables, aiming to establish causal relationships between variables and draw conclusions about communication phenomena.
- Experiments are particularly useful in communication research for exploring media effects, interpersonal communication dynamics, message framing, media literacy, and public opinion formation. They are employed when researchers seek to establish causal relationships, test hypotheses, and explore the

effects of specific variables under controlled conditions.
- Experiments play a crucial role in communication research by providing significant advantages in establishing causal relationships and enhancing theories. Yet, it is essential to acknowledge their shortcomings, including issues like artificiality, generalisability, ethical considerations, demand characteristics, and practical limitations. Researchers and media professionals need to carefully assess these factors when selecting and designing experimental studies, ensuring the validity and significance of their findings within the intricate landscape of communication.
- Content analysis is an unobtrusive research methodology used to analyse textual, visual, or auditory content in communication studies. It enables researchers to systematically examine communication patterns, cultural representations, public opinion, historical trends, media bias, and symbolic meanings.
- Content analysis offers both manifest and latent content insights and does not require ethics approval, but researchers and media professionals need to be aware of its strengths and limitations, including potential subjectivity in coding, lack of context, and limitations in understanding audience reception.

Key Terms

Experiments: A systematic method of gathering data designed to test hypotheses within controlled conditions.

  Classic Experiment: A research approach that evaluates the impact of a stimulus by comparing two groups: one exposed to the stimulus (experimental group) and another not exposed (control group).

  Experimental Group: The subset of participants exposed to a stimulus in an experiment.

Control Group: The subset of participants not exposed to the stimulus in an experiment, serving as a baseline for comparison.

Placebo: A substance, treatment, or intervention that lacks any therapeutic or active medical properties but is administered to individuals in a clinical or research setting.

Placebo Effect: The phenomenon where a person experiences a perceived improvement in their condition or symptoms due to their belief in the efficacy of a placebo, even though the placebo itself lacks any active therapeutic properties. The placebo effect is a psychological or physiological response that can result from a person's expectation of positive outcomes, suggesting the power of the mind in influencing health and well-being. This effect is often observed in clinical trials and medical treatments, highlighting the role of psychological factors in shaping individual experiences of relief or improvement.

Blinding: Blinding is a strategy used in experimental design to reduce bias by keeping key information hidden from participants, researchers, or both, thus contributing to more objective and credible research outcomes.

Pretest: Known as a baseline measurement, is an initial assessment or measurement of a participant's characteristics, behaviours, or conditions before the application of an intervention, treatment, or experimental manipulation. Pretests serve as a reference point, providing a snapshot of the participants' starting point and establishing a baseline against which post-intervention changes can be compared. The use of pretests helps researchers control for individual differences, enhance internal validity, and determine the causal effects of the intervention.

Post-test: A subsequent assessment or measurement conducted after an intervention, treatment, or experimental manipulation has been applied to participants. The post-test measures the outcomes or changes resulting from the intervention and provides data that allow researchers to analyse the effects of the treatment. By comparing post-test results to pretest data, researchers can evaluate the impact of the intervention and determine whether

observed changes are statistically significant and attributable to the intervention itself. Post-tests are crucial for assessing the effectiveness and implications of interventions within experimental research.

Quasi-experiment: A research design that resembles an experimental study but lacks some key elements of true experimentation, such as the full random assignment of participants to groups. In a quasi-experiment, researchers aim to investigate the effects of an independent variable on a dependent variable, similar to an experiment, but they cannot control or manipulate the assignment of participants to groups in the same way.

Demand Characteristic: Cues or subtle signals within an experimental setting that inadvertently convey information to participants about the researcher's hypothesis, expectations, or the desired outcomes of the study. These cues can lead participants to modify their behaviour or responses to align with perceived expectations, potentially introducing bias and affecting the validity of the experiment's results. Demand characteristics can arise from various sources, such as the experimenter's demeanour, instructions, or the experimental environment, and may impact participants' natural responses, compromising the study's internal validity. Researchers aim to minimise demand characteristics to ensure that participants' behaviours are genuine and unaffected by unintentional cues.

Unobtrusive Research: Data collection methods that avoid interfering with subjects under study, employed by both quantitative and qualitative researchers.

Content Analysis: An unobtrusive research method focusing on the analysis of human communication patterns.

Primary Sources: Original, unanalysed data pieces serving as the foundation for research.

Secondary Sources: Analysed data pieces resulting from prior examination.

Manifest Content: The observable and apparent surface-level content in analysis.

Latent Content: The underlying, less conspicuous meaning beneath the observed surface content.

Further Reading and Resources

CrashCourse. (2018, March 21). *Controlled experiments: Crash course statistics #9* [Video]. YouTube. https://www.youtube.com/watch?v=kkBDa-ICvyY

Grad Coach. (2022, Dec 13). *Qualitative Content Analysis 101: The what, why & how (with examples)* [Video]. YouTube. https://www.youtube.com/watch?v=i_5Isz9t8Hc

11. Understanding Polls

Learning Objectives for Chapter

- Recognize why the 2016 election was so important as a case study for drawing public attention to the need for pollsters and media attention to rethink methods and reporting on elections.
- Identify the history of the poll.
- Identify the different types that are common during an

election and the goals they serve.
- Evaluate the pros and cons of the different methods in polling for collecting data.
- Recognise the sorts of questions journalists should be asking of polls.
- Understand the key aspects that should be considered when interpreting poll results by media professionals and citizens.

Introduction

The 2016 U.S. presidential election profoundly impacted media professionals and pollsters. Donald Trump's unexpected victory prompted a reassessment of polling methods and media reporting. This event highlighted the challenges of predicting elections and conveying public sentiment accurately.

Traditional polling methods struggled to capture certain demographics, like white working-class voters who strongly supported Trump. "Shy Trump voters" and social bias added to polling inaccuracies. Unpredictable voter turnout and late-deciding voters further complicated the picture.

Media professionals also faced challenges interpreting the election polls, often favouring sensationalism over substantive discussions.

This chapter explores these complexities, factors contributing to polling inaccuracies, media's role, history, and types of polling. It will also attempt to guide you as a media professional about the questions you should ask of polls and what it means to interpret results responsibly. This should equip you to provide accurate, informed reporting that enhances public understanding and discourse.

The 2016 Election: A wakeup call for media

professionals and pollsters alike

In the lead-up to the 2016 U.S. presidential election, the polling industry faced an unexpected and significant challenge: accurately predicting the outcome. The surprise victory of Donald Trump over Hillary Clinton left many pollsters and political pundits confused as to how and why the victory occurred since this did not match up with the expectations. Some extensive work has been done asking why the polls failed to forecast Trump's success. A few of the key factors identified are explored below.

One factor that contributed to the polling inaccuracies concerned sampling and accurate representation within samples. It has been suggested that traditional pollsters may have struggled to capture the views of white working-class voters, a demographic that strongly supported Trump (Chalabi, 2016).

The phenomenon of "shy Trump voters" and/ or social desirability bias may have also played a role. Some voters who supported Trump may have been hesitant to disclose their preference to pollsters due to concerns about being judged or facing social disapproval and or they may have been less likely to respond to surveys (Mercer, Deane & Mcgeeney, 2016)

Unpredictability of voter turnout and the influence of late-deciding voters in the context also played a role (AAPOR, 2016).

Media professionals, like pollsters, faced challenges in interpreting and reporting on the 2016 U.S. presidential election polls. Making a blanket statement about all media professionals is difficult, some have acknowledged the limitations and potential misinterpretation of polling data. Here are a few instances of sources discussing the role of media professionals and their handling of polls during the 2016 election.

Sullivan (2016) argued that the scenario was too awful for reporters to imagine so they failed to look deeply at the possibility of a victory and what was driving it.

Duncan, Watts & Rothschild (2017) suggest media professionals

struggled to accurately capture the intricate dynamics and implications presented by the polling data. It suggested that media professionals often gravitated towards sensational aspects, controversies, and personalities, instead of focusing on substantive policy issues.

It is crucial to recognize that the media landscape is diverse, with media professionals and news outlets adopting varying approaches and interpretations. While some media professionals anticipated the possibility of a Trump victory, others completely underestimated it making accurate reporting a challenge.

The examples discussed so far shed light on broader observations and discussions concerning the media's role in comprehending and communicating the intricacies of the polling data during the 2016 election. Which is why there is some time being devoted to understanding polls in this textbook.

The History of the Poll

The first known public opinion poll is commonly attributed to the Harrisburg Pennsylvanian newspaper in 1824. The newspaper conducted a straw poll to gauge public opinion on the presidential election between John Quincy Adams and Andrew Jackson (Crotty, 2014). This poll, however, was not conducted using the scientific methodologies and sampling techniques that we associate with modern polling.

The concept of modern-day polling began to emerge in the early 20th century. The first scientific poll conducted by professional pollsters using modern techniques is often attributed to George Gallup, an American statistician (Gallup, 1972).

In 1932, George Gallup founded the American Institute of Public Opinion, which later was called the Gallup Organisation. Gallup conducted a poll during the 1936 U.S. presidential election between Franklin D. Roosevelt and Alf Landon. This poll accurately predicted

Roosevelt's victory, even though other surveys and experts predicted a Landon win. This success pushed Gallup's polling methods into the spotlight and established his reputation as a leading figure in the field of public opinion research (Gallup, 1972).

In the early 1940s, Gallup conducted one of the earliest significant public opinion polls (POPs) in Canada on behalf of the Liberal party. This poll aimed to assess the public's stance on conscription during World War II (Scholars Portal, n.d.).

Since the 1980s, as polling gained more prominence and reached a broader audience, several other major polling firms in Canada, including Decima Research, Environics, Angus Reid, and Ipsos Canada, have become increasingly active in conducting polls (Scholars Portal, n.d.).

Purpose and Types of Polls

Polls serve various purposes in the field of research and media studies. They are primarily conducted to measure public opinion on a wide range of topics, such as political preferences, social issues, consumer behaviour, and much more.

While "public opinion" is often used to suggest a unified perspective, it is important to recognise that individuals within the public hold a range of diverse opinions on any given issue.

Furthermore, it's worth noting that specific issues typically capture the attention and interest of only certain segments of the population (Rand, 1993).

Polls can also be used to predict election outcomes, track changes in public sentiment over time, inform policy decisions, and provide insights for market research. According to (Polyas, 2023) there are three types of polls commonly used in an election each which is briefly outlined below.

Benchmark polls: These polls are conducted at the outset of a campaign to provide candidates with an initial gauge of their

popularity among the electorate. If candidates receive consistently low levels of support, they may reconsider their decision to run for election.

Brushfire polls: Throughout the campaign, candidates rely on these polls to track any progress they are making. Such polls help identify areas where candidates may be facing challenges within specific demographics, allowing them to tailor their strategies and improve their overall performance in the election.

Tracking polls: These polls are conducted periodically, targeting the same group of individuals. Their purpose is to measure shifts in public opinion over time rather than focusing solely on a candidate's popularity level. By capturing general trends, tracking polls provide insights into the changing sentiments of the electorate.

Data Collection and Polls

When interpreting and reporting on polls, media professionals must carefully consider these pros and cons to assess the reliability and potential biases associated with different polling methods. Understanding the target population and the specific research objectives can help media professionals select the most appropriate polling method for a given situation, ensuring accurate and informative reporting. By being aware of the strengths and limitations of different polling methods, media professionals can effectively navigate the complexities of interpreting poll results and provide the public with a more comprehensive understanding of public opinion.

According to the CBC Poll Tracker (Grenier, 2021), the three most common polling methods in Canada include: telephone, IVR (Interactive Voice Response) and internet. The benefits and challenges to each are listed below.

Telephone:

Polls were conducted via the telephone with live operators conducting the interviews with randomly dialled respondents. This is one of the oldest forms of polling. Its pros and cons are listed below:

Pros:

- Wide reach: Telephone interviews allow for a broad reach, as they can target both landline and mobile phone users. This increases the likelihood of reaching a diverse range of respondents.
- Personal interaction: Telephone interviews provide a level of personal interaction between the interviewer and the respondent. This can help build rapport and encourage more in-depth responses.
- Probing and clarification: Interviewers have the ability to probe and ask follow-up questions, allowing for better clarification of responses. This can lead to richer and more nuanced data.
- Flexibility: Telephone interviews offer flexibility in terms of timing. Interviewers can schedule calls at a time that is convenient for the respondent, increasing the chances of participation.

Cons:

- Declining response rates: Response rates for telephone surveys have been declining over the years. People are more hesitant to answer calls from unknown numbers or participate in lengthy interviews, leading to potential non-response bias.
- Exclusion of certain populations: Not everyone has access to telephones, particularly specific demographic groups such as low-income individuals or those without landlines. This can result in the underrepresentation of these groups in the survey.

- Potential interviewer bias: Interviewers can unintentionally introduce bias through tone, inflection, or other subtle cues. This can impact respondent's answers and compromise the objectivity of the survey.
- Costly and time-consuming: Telephone surveys can be costly and time-consuming to conduct, especially if a large sample size is required. Costs can include hiring and training interviewers, phone charges, and data collection expenses.

IVR (Interactive Voice Response):

IVR surveys are automated.
  Pros:

- Cost-effective: IVR polling reduces labour costs as it doesn't require live interviewers.
- Large-scale reach: It quickly collects data from a large number of respondents, making it suitable for broad-scale opinion tracking.
- Anonymity and privacy: Respondents can express views without fear of judgement or repercussions.
- Standardised delivery: Consistent question delivery minimises bias and enhances result reliability.

Cons:

- Limited question complexity: IVR is better suited for straightforward, closed-ended questions.
- Sample bias: Certain demographic groups may be underrepresented due to phone access limitations.
- Lack of interviewer interaction: Misses opportunities for detailed insights and clarification.
- Limited reach to specific populations: Certain groups may be

excluded due to language or accessibility barriers.

Internet:

Polls conducted via the Internet. In most cases, respondents come from a panel of Canadians recruited in various ways, including over the telephone.

Pros:

- Wide accessibility: Internet polls can reach a large and diverse audience since many people have access to the internet worldwide. It allows for the inclusion of individuals who may not have access to traditional polling methods.
- Cost-effective: Internet polls can be cost-effective compared to other methods. They eliminate the need for paper-based surveys, postage, and manual data entry, reducing costs associated with data collection.
- Quick data collection: Internet polls can rapidly collect responses due to the ease and speed of online survey distribution. Results can be obtained in real-time or within a short period, providing timely insights.

Cons:

- Sample bias: Internet polls may suffer from sample bias, as they are conducted online. The respondents who participate may not represent the broader population accurately, as certain demographic groups may be overrepresented or underrepresented.
- Self-selection bias: Internet polls rely on voluntary participation, which can lead to self-selection bias. Those who choose to participate may have different characteristics or opinions compared to those who opt out, impacting the

representativeness of the results.

- Limited internet access: Internet polls exclude individuals who do not have reliable internet access or those who are not comfortable using online platforms. This can result in the exclusion of certain demographics, potentially skewing the results.
- Potential for manipulation: Internet polls are susceptible to manipulation and fraudulent responses. Multiple submissions from the same person, automated responses, or strategic voting can compromise the validity and reliability of the data.

There is also a form of hybrid polling which includes a mixture of all three to overcome the challenges of each method.It's important to consider these pros and cons when evaluating a poll. Other factors such as the target population, research objectives, and available resources should also be taken into account.

Additionally, **weighting** in polls is a statistical technique used to adjust the results so they better reflect the overall population. When a sample doesn't perfectly match the demographic characteristics of the larger population (e.g., age, gender, race, or education), pollsters assign different "weights" to responses based on underrepresented or overrepresented groups. For instance, if younger people are underrepresented in the sample, their responses might be given more weight to accurately reflect their presence in the population. This process ensures that the poll results are more representative of the broader population, improving the accuracy of the findings.

Finally, the **confidence interval** and **margin of error** are related concepts used in statistics to assess the accuracy of estimates. A confidence interval is a range of values that estimates the true value of a population parameter with a certain level of confidence, typically 95%. It reflects the precision of the estimate, considering sampling variability. The margin of error, on the other hand, is a component of the confidence interval and represents the maximum expected difference between the sample result and the true

population value. For example, if a poll result is 50% with a margin of error of ±3%, the confidence interval would range from 47% to 53%, indicating where the true value is likely to fall.

Key Questions to Be Asked of Polls

The American Association for the Advancement of Science's SciLine (2020) provides some key questions which have been adapted and summarised below:

- **Is this survey truly a legitimate poll?** Some campaigns and advocacy groups engage in "push polls" that are not genuine polls at all. Instead of aiming to measure people's opinions, these polls actively seek to manipulate and change people's opinions about certain issues or individuals. One indicator of a push poll is the lack of any demographic information being collected.
- **Who sponsored and conducted the poll?** If you are not an expert, it is advisable to consult professionals who can assess the reputation of the sponsor. It is important to mention the name of the sponsor in the story to hold them accountable for the work they are supporting. In Canada Léger, Nanos Research, Ipsos and Janet Brown have been recognized for their accuracy in predictions (338, 2020).
- **Who was the target population?** Understanding the target population is crucial for interpreting the results accurately. Defining the target population is crucial because it helps ensure that the poll's findings are applicable and relevant to the specific group of interest. The target population can vary depending on the research objective or the topic being studied. For example, the target population of a political poll might be likely voters in a particular region, while the target

population of a market research survey could be consumers who have purchased a certain product. Determining the target population involves identifying the specific characteristics or criteria that define the group of interest. These characteristics can include demographic factors such as age, gender, location, education level, or occupation. The target population may also be defined by other factors such as political affiliation, consumer behaviour, or specific interests. It is important for pollsters to carefully define and describe the target population to ensure transparency and enable readers or users of the poll results to understand the scope and applicability of the findings. The target population provides context for interpreting the results and helps determine the relevance of the poll to specific subsets of the population.

- **How many individuals were sampled and where?** The location of the sample provides important context, and larger sample sizes generally contribute to more reliable results. A larger sample size helps reduce sampling errors and provides a more precise representation of the population as a whole.
- **How were the interviews conducted?** The methodology used to collect the interviews can indicate the representativeness of the sample. For example, were the interviews conducted through landline and cellular telephones, or were they conducted online and via telephone?
- **When was the poll conducted?** The date of the poll is significant for interpreting the results, particularly in fast-changing environments such as politics. For example, specifying that the interviews were conducted from September 15 to November 8, 2019, would provide the necessary time frame.

- **What was the margin of sampling error?** Including information about the margin of sampling error is crucial as it represents the uncertainty and range of plausible results. For example, stating that the poll had a margin of sampling error of +/- 6.0 percentage points means that the true results could fall within six percentage points in either direction from the reported results. This is a large result. Oftentimes pollsters aim for +/-3%.
- **Was there any weighting applied?** If so, what factors were weighted? For instance, if the results were weighted, it should be mentioned that the weighting aimed to ensure that responses accurately reflected the characteristics of the population in terms of factors such as age, sex, race, education, and phone use. Through weighting, pollsters can also account for this non-response and adjust the data to account for the characteristics of non-respondents. This helps to mitigate potential biases that may arise from differential response rates.
- **What was the response rate?** The response rate of a poll refers to the percentage of individuals who participate in the survey out of the total number of individuals who were contacted or eligible to participate. The response rate is an important factor in evaluating the quality and reliability of a poll for the following reasons: high response rate increases the likelihood that the sample is representative of the target population; low response rate can introduce sample bias and undermine the validity of the poll's findings; the response rate impacts the generalisability of the poll's results (higher response rates increase the confidence in extrapolating the findings to the larger population); and, Higher response rates generally lead to more precise

estimates and narrower confidence intervals, as the larger sample size reduces the sampling variability.

- **What questions were asked and how might they influence the poll?** Some things to consider include:

-The order in which questions are asked can prime respondents and influence their subsequent responses. Early questions can shape respondents' attitudes or perceptions, leading to biassed or skewed responses in later questions. For example, asking negative or positive questions before a specific policy question can impact how respondents perceive and respond to that policy.

-The way a question is framed or phrased can influence how respondents interpret and respond to it. Even slight changes in wording can elicit different responses. Biassed or leading language can introduce a form of response bias, where respondents are subtly directed toward a particular answer or viewpoint.

-Ambiguous or confusing questions can lead to inaccurate or inconsistent responses. It is essential to use clear and concise language to ensure that respondents understand the question correctly. Complex or jargon-laden questions may cause confusion, leading to unreliable data.

To address these issues, pollsters and researchers carefully design and pre-test survey questions to ensure clarity, neutrality, and accuracy. They often employ established best practices in questionnaire design, such as using balanced response options, randomise question order, and avoiding leading or biassed language.

How to Interpret Poll Results

In the world of journalism, and broadcasting, interpreting poll results requires careful attention to various factors to ensure

accurate and responsible reporting. Media professionals play a crucial role in presenting poll data in a manner that is informative and unbiased. Here are some key aspects that should be considered when interpreting poll results:

- **Provide Context:** Contextualise poll results by comparing them to previous polls or relevant benchmarks. Analyse trends over time and consider the broader social, political, or economic context to understand the significance of the findings. Also, you should not emphasise the results of much on any one poll. Comparing several similar polls makes the most sense.

- **Be Transparent:** Clearly explain the methodology used in the poll, including the sampling technique, sample size, and any weighting or adjustments applied. Transparency helps readers evaluate the reliability and generalizability of the results.

- **Understand Margin of Error and Confidence Intervals:** Communicate the margin of error associated with the poll results to provide readers with a realistic understanding of the potential variability in the data. Emphasise the margin of error when presenting findings to avoid overgeneralization. An example of poor reporting provided by The American Association for the Advancement of Science's SciLine (2020) was: in mid-January 2020, certain publications reported that a poll indicated a "majority" or "more than half" of Americans supported the President's impeachment, conviction, and removal from office. The poll results showed that 51% of surveyed U.S. adults answered affirmatively to that question. However, it is essential to consider the margin of sampling error, which was +/- 3.4 percentage points. This margin represents the range

within which the true results for the population could plausibly fall, accounting for the inherent uncertainty of surveying a sample rather than the entire population. With this level of precision, we cannot definitively conclude that over half of U.S. adults shared this opinion. Taking into account the sampling error, the most plausible range of values is between 47.6% and 54.4% (51 minus 3.4 and 51 plus 3.4). Considering this range, it is plausible that only around 48% of all U.S. adults favour impeachment and removal. Therefore, we cannot conclude that there is a "majority" or "more than half" in support of this position.

▪ **Avoid Oversimplification:** Be cautious when reporting complex poll results and avoid oversimplifying the findings. Clearly explain the nuances and limitations of the data to prevent misinterpretation.

▪ **Beware of Outliers:** Be sceptical of poll results that deviate significantly from other reputable polls or established trends. Investigate potential methodological differences or sample anomalies that could explain the outlier results.

▪ **Use Appropriate Visuals:** When presenting poll data visually, use clear and accurate visual representations such as charts or graphs. Ensure the visuals accurately reflect the data and avoid exaggerating or distorting the results. Some examples of these could include heat maps, bar chart races, column charts (stacked or otherwise) (Spure, 2020). In addition, be careful because polls may show leaders in a deadlocked race, but a specific party may be favoured to win more seats which is ultimately what will decide who wins! The popular vote for a specific leader does not translate directly into the seats they secure.

▪ **Seek Expert Insights:** Consult experts in polling or

survey research to gain additional perspectives on interpreting the results. Experts can provide valuable insights and help verify the accuracy of the interpretation.

By following these recommendations, media professionals can provide well-rounded and accurate reporting on poll results, enabling readers to better understand and interpret the findings. Furthermore, by paying attention to these factors, media professionals can ensure their interpretation of poll results is accurate, nuanced, and responsible. This contributes to a more informed public discourse and helps the audience gain a clearer understanding of public opinion.

Reflection Question

How might the challenges faced by pollsters and media professionals in accurately interpreting and reporting on the 2016 election polls influence the public's trust in future poll results and media coverage of elections? Document your thoughts in a 200–300-word post.

Key Chapter Takeaways

- The media's role in comprehending and communicating the intricacies of the polling data during the 2016 election is a great example of why journalists need to read polls is so important. Mistakes were made by both pollsters and media professionals who underestimated Trump's possibility for electoral success and may have impacted the need for voters to

go to the polls.

- ▪ Candidates rely on different sorts of polls throughout the campaign to help them formulate their responses to a potential electorate.
- ▪ There are three common forms of polling in Canada (telephone, IVR, and internet). Each brings its own advantages and disadvantages. Being aware of these will make media professionals better able to reflect on the accuracy of the poll.
- ▪ Media professionals have some key questions they must ask of all polls before they report on them such as who conducted the poll, the timing and method used to conduct responses. What was the response rate, sample composition, poll weighting, the types of questions and their order and how this might impact respondents.
- ▪ Media professionals play a crucial role in presenting poll data in a manner that is informative and unbiased. This includes offering context and transparency, avoiding oversimplification, understanding how best to present the margin of error and confidence intervals, being aware of things that stand out as atypical, incorporating appropriate visuals, seeking expert insights.

Key Terms

Social Desirability Bias: Social desirability bias is a phenomenon in which individuals tend to provide responses they believe are socially acceptable instead of expressing their genuine opinions. This bias frequently manifests when addressing challenging topics like abortion, race, sexual orientation, and religion.

   Public Opinion Poll: A survey conducted to measure public

opinion on a wide range of topics, such as political preferences, social issues, consumer behaviour and other subjects.

Benchmark Polls: Polls conducted at the outset of a campaign to provide candidates with an initial gauge of their popularity among the electorate.

Brushfire Polls: Candidates rely on these polls to track any progress they are making throughout the campaign.

Tracking Polls: These polls are conducted periodically, targeting the same group of individuals.

Telephone Polling: Polls conducted via the telephone with live operators conducting the interviews with randomly dialled respondents.

IVR (Interactive Voice Response) Polling: IVR surveys are automated polls designed to reach a population.

Internet Polling: Is using the internet to recruit and collect data.

Hybrid Polling: This includes a mixture of different polling methods to overcome the multiple challenges of each method found in conventional polling.

Push Polls: These polls actively seek to manipulate and change people's opinions about certain issues or individuals.

Target Population: Who the pollster hopes to reach.

Weighting: Weighting aimed to ensure that responses accurately reflected the characteristics of the population in terms of factors such as age, sex, race, education, and phone use. This helps to mitigate potential biases that may arise from differential response rates.

Confidence Interval: A range of values that estimates the true value of a population parameter, with a specified level of confidence (e.g., 95%). It indicates the likely range within which the true value falls, reflecting the precision and reliability of the estimate.

Response Rates: The response rate of a poll refers to the percentage of individuals who participated in the survey out of the total number of individuals who were contacted or eligible to participate. It matters because if you have a low response rate your poll will be less reliable even with a large sample size.

Margin of Error: This margin represents the range within which the true results for the population could plausibly fall, accounting for the inherent uncertainty of surveying a sample rather than the entire population.

Pre-test Survey Questions: Questions piloted before a survey to ensure clarity, neutrality, and accuracy by respondents.

Outliers: Poll results that deviate significantly from other reputable polls or established trends.

Further Reading and Resources

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12. Knowledge Translation

Learning Objectives for Chapter

- Understand the necessity of being a research translator as a media professional and the challenges media professionals face.
- Identify the different parts of a research paper and the key questions media professionals should ask of them to make their reporting more accurate, precise and informed.

- Identify the qualities of poor research.

Introduction

In academia, researchers work to understand the world and share their findings. However, their work often stays within academic circles. This is where media professionals come in – they translate complex research into accessible content. This chapter explores how to do that effectively.

Academic research can shape public discussions and policies, but its language can be hard to understand. Media professionals simplify this information for broader audiences. They turn complex research into stories that resonate. This amplifies the impact of academic work and makes it more widely known.

Understanding research is the first step. Media pros need to dig deep into methodologies and results. This helps them uncover key points and limitations of their stories.

In this chapter, we explore knowledge translation one last time and consider how you as a media professional can avoid common pitfalls. This chapter invites you to illuminate academic complexity and promote public understanding. Through this, we can harness the potential of academic research for everyone's benefit.

The Importance of Translating Academic Research

In the realm of academia, researchers devote their time and expertise to conducting studies, publishing papers, and contributing to the collective knowledge of their respective fields. However, despite the significant impact their work can have on society, academic research often remains confined within the

scholarly community. This is where media professionals play a crucial role in bridging the gap between academia and the general public: known as "***knowledge translation***."

   Academic research is a valuable resource that offers insights and discoveries that can shape public discourse, policy-making, and individual decision-making. The findings and conclusions derived from rigorous research have the potential to drive societal progress and improvement.

   However, the language, structure, and technical nature of academic papers can make them inaccessible to the general public. Media professionals, with their skill for simplifying complex information and telling engaging stories, have the power to transform dense academic research into digestible content that resonates with a broader audience. By doing so, they can amplify the impact of academic research and bridge the gap between scholarly work and public understanding.

Understanding the Research Paper

The first step in translating academic research is to gain a deep understanding of the study itself. Media professionals must go beyond simply skimming the abstract and delve into the full research papers. They need to critically evaluate the methodology, results, and implications presented by the researchers. This process requires strong analytical skills and the ability to grasp complex concepts quickly. By immersing themselves in the research, media professionals can identify the key findings, nuances, and limitations that will form the foundation of their storytelling. They can also identify any potential biases or conflicts of interest that may influence the interpretation of the research. The goal of this course has been to make you more comfortable with this process.

   Remember Chapter 3 and this table?

Figure 12.1

Questions on Report Sections

Report section	Questions worth asking
Abstract	What are the key findings? How were those findings reached? What framework does the researcher employ?
Acknowledgements	Who are this study's major stakeholders? Who provided feedback? Who provided support in the form of funding or other resources?
Introduction	How does the author frame their research focus? What other possible ways of framing the problem exist? Why might the author have chosen this particular way of framing the problem?
Literature review	How selective does the researcher appear to have been in identifying relevant literature to discuss? Does the review of the literature appear appropriately exhaustive? Does the researcher provide a critical review?
Sample	Was probability sampling or non-probability sampling employed? What is the researcher's sample? What is the researcher's population? What claims will the researcher be able to make based on the sample? What are the sample's major strengths and major weaknesses?
Data collection	How was the data collected? What do you know about the relative strengths and weaknesses of the method employed? What other methods of data collection might have been employed, and why was this particular method employed? What do you know about the data collection strategy and instruments (e.g., questions asked, locations observed)? What don't you know about the data collection strategy and instruments?
Data analysis	How was the data analyzed? Is there enough information provided that you feel confident that the proper analytic procedures were employed accurately?
Results	What are the study's major findings? Are findings linked back to previously described research questions, objectives, hypotheses, and literature? Are sufficient amounts of data (e.g., quotes and observations in qualitative work, statistics in quantitative work) provided in order to support conclusions drawn? Are tables readable?
Discussion/conclusion	Does the author generalize to some population beyond their sample? How are those claims presented? Are claims made supported by data provided in the results section (e.g., supporting quotes, statistical significance)? Have limitations of the study been fully disclosed and adequately addressed? Are implications sufficiently explored?

This is a great time to reflect on how and if your understanding of these parts of research have changed. In the past few weeks, you have spent a great deal of time thinking about samples, data collection, data analysis and results.

Spotting Bad Research

In a world full of information, knowing which research is reliable and

which isn't is really important. When we look at scientific studies, we need to be smart and think carefully. While learning new things is great, we must also watch out for things that might trick us.

Here are some key things you should look for according to [The Science Media Centre (2023):](#)

Differentiating Correlation and Causation:

Beware of mistaking **_correlation for causation._** The fact that two variables are correlated does not necessarily imply a cause-and-effect relationship. For instance, while global warming has increased since the 1800s and the number of pirates has decreased, it does not mean that the absence of pirates causes global warming.

Drawing Unsupported Conclusions:

While speculation can advance scientific knowledge, studies should clearly distinguish between established facts and unsupported conclusions. Statements formulated with speculative language may require additional evidence for validation.

Issues with Sample Size:

In trials, smaller sample sizes lead to lower confidence in the results obtained from those samples. Although valid conclusions can still be drawn from small samples in some cases, larger samples generally provide more representative outcomes.

Use of an Unrepresentative Sample:

In human trials, participants should be selected to represent the larger population accurately. If the sample differs significantly from the overall population, the conclusions drawn from the trial may be biassed towards a specific outcome.

Absence of Control Group or Blind Testing:

In clinical trials, it is essential to compare the results of test subjects with a control group that does not receive the substance being tested. Group allocation should be random. A control test should be employed where all variables are controlled. To minimise bias, subjects should be unaware of whether they are in the test or control group. In "double-blind" testing, even researchers are unaware of the group assignments until after the testing is complete. Note that blind testing is not always feasible or ethical.

Sensationalist Headlines:

Article headlines often aim to attract readers' attention, sometimes oversimplifying or sensationalising scientific research findings. At worst, they may distort or misrepresent the research altogether.

Misinterpreted Results:

News articles can distort or misinterpret research findings, either deliberately or unintentionally, in pursuit of a compelling story. It is

advisable to read the original research rather than relying solely on articles based on it when possible.

Conflict of Interests:

Many companies employ scientists to conduct and publish research. While this does not necessarily invalidate the research, it is important to consider potential biases arising from conflicts of interest. Research can also be misrepresented for personal or financial gain.

Selective Reporting of Data:

Also known as **"*cherry-picking***," talked about in Chapter 1, this involves selecting data that supports the research's conclusion while disregarding conflicting data. If a research paper draws conclusions from a selective subset of results rather than considering all available data, it may be guilty of selective reporting.

Irreproducible Results:

Results should be replicable by independent researchers and tested under a wide range of conditions whenever possible to ensure consistency. Extraordinary claims require robust evidence, usually beyond a single independent study. This is key to reliability.

Non-Peer Reviewed Material:

As noted, several times throughout this book,**Peer review** plays a crucial role in the scientific process. Other experts evaluate and critique studies before they are published in reputable journals. Research that has not undergone this rigorous review process may be less reliable and potentially flawed.

Identifying the Newsworthy Angle

Not all academic research is immediately newsworthy, and media professionals must identify the angles that are likely to capture public interest. They should consider the potential impact of the research on society, its relevance to current events or trends, and its potential to challenge conventional wisdom or spark debate. By selecting the most compelling aspects of the research, media professionals can create stories that resonate with their readers or viewers. This requires a keen sense of news judgement and an understanding of the audience's interests and needs. Media professionals should also be aware of any potential ethical considerations that may arise from the publication of certain research findings.

Informa UK (2023)offers some guidance as to what media professionals should look for:

- **A groundbreaking advancement in the field:** A substantial progress that holds great importance in a particular area, possibly relevant to the general public.
- **Societal implications:** Research addressing matters that directly impact the everyday lives of ordinary individuals.
- **Proposals for change:** Novel methodologies and evidence-based solutions that have the potential to capture the attention of policymakers and the general public.

- **Timeliness:** Research that aligns with current events and interests, as it tends to attract a larger audience.

Simplifying Complex Concepts:

One of the biggest challenges in translating academic research is simplifying complex concepts without sacrificing accuracy. Media professionals must distil technical language, jargon, and statistical analyses into plain and understandable terms. They need to balance maintaining research integrity and making it accessible to a wider audience.

Below are some excellent tips provided by (Script, 2022)

Overall, you want to focus on the key findings of the research paper and their implications for society. Avoid excessive information that may distract policymakers and the general public from the most important message. Address the top questions by focusing on the 5Ws and H: what, when, where, who, why, and how.

- **Eliminate technical jargon:** When writing science news, use simple language and avoid technical jargon. Technical terms can make information difficult to grasp and prone to misinterpretation, which may deter your audience. Consider how you can express the same concepts using everyday words. Replace "carcinogenic" with "cancer-causing". If using technical terms, provide explanations, and avoid acronyms that the public may not be familiar with.
- **Incorporate real-life examples:** Use real-life examples to enhance your science news writing. By doing so, you help your audience understand and relate to the information you're conveying. Take global warming as an example. Begin by discussing global warming, then highlight the effects of temperature changes, such as rising sea levels. Finally, share stories of individuals displaced by rising sea levels to make it

more tangible for your readers.

- **Relate it to familiar concepts:** Some subjects may be unfamiliar to your audience. When writing science news, compare concepts they are already familiar with. Use relevant examples to help them visualise and comprehend the information. For example, if an object has a diameter of nine inches, describe it as about the size of a soccer ball. This will help your audience visualise it.
- **Utilise visuals and audio:** Research news doesn't have to be limited to written text. Incorporate images and audio to engage your audience's senses. Visual aids such as drawings, graphics, illustrations, photos, and videos effectively convey your message. They provide a visual representation of what you are explaining. Similarly, audio can be a valuable tool for helping your audience quickly understand your ideas.
- **Use statistics sparingly:** To ensure simplicity in your science news story, use numbers and statistics judiciously to support your points. Consider the following tips when handling numbers and statistics:
  - Use fewer numbers in a sentence.
  - Replace percentages with familiar fractions when possible. Use approximations like "nearly half" instead of "49.53%."
  - Limit the number of digits and decimal places. For example, write "The global population is more than 7.6 billion people" instead of "The world has 7,632,819,325 inhabitants."

Interviewing Researchers

To gain additional insights and perspectives, media professionals should seek opportunities to interview the researchers directly. These interviews provide valuable context, clarifications, and real-life examples that can enrich the story. Media professionals should

prepare well-researched questions and maintain a respectful and collaborative approach to foster a productive dialogue with the researchers. These conversations can uncover the motivations behind the research, the challenges faced during the study, and the potential implications of the findings. Including the researchers' voices in the journalistic narrative adds credibility and depth to the story, providing readers with a more holistic understanding of the research. It also allows media professionals to address any potential gaps or ambiguities in the original research and provide a more balanced perspective.

In a recent blog post an academic and journalists came together to offer these tips for journalists/broadcasters interacting with academics (Grouard & Poutcha, 2023):

- Many academics view journalists with scepticism due to concerns about misrepresentation. Professional communicators need to demonstrate why academics should collaborate with them.
- Most academics lack media training. Be transparent about your intentions and share information about yourself and your piece.
- Obtain consent for recording interviews and inform academics that they can pause or retract statements.
- Regularly share quotes and context with academics for their review. Engaging different perspectives is welcome, but be mindful of ethical considerations, especially with vulnerable populations.
- Controversy may attract attention, but it can harm academics' careers. If your piece intends to stir controversy, communicate this to academics, as it can affect their job security.
- Provide academics with the published piece and be open to addressing concerns. Offer the option to remove their contributions if they are uncomfortable with how their work is being used.

Fact-Checking and Peer Review

Maintaining accuracy and credibility is paramount when translating academic research. Media professionals should fact-check their articles rigorously and ensure that their interpretations align with the original research. This includes verifying data, quotes, and references, as well as corroborating information with multiple sources. Seeking input from other experts in the field for peer review can also enhance the quality and accuracy of the content. Peer review provides an additional layer of validation, allowing experts to assess the accuracy and reliability of the journalist's interpretation of the research. Incorporating expert feedback and suggestions can strengthen the journalistic narrative and provide a more comprehensive understanding of the research.

There have been some interesting discussions about how fact checkers and researchers who actually study fact checking can work together better to fight disinformation. More details in a recent report about this topic can be found on the Poynter website in an article by Holan (2023).

Engaging and Accessible Storytelling

Academic research often involves data and complex analyses, but effective journalism requires engaging storytelling techniques. Media professionals should craft narratives that connect with readers emotionally, highlighting the human impact and implications of the research. By incorporating personal stories, anecdotes, or case studies, media professionals can make the research relatable and tangible to the audience. Using multimedia elements such as infographics, charts, or videos can enhance the accessibility and appeal of the content, helping readers or viewers visualise complex information. By adopting a creative and engaging

approach, media professionals can captivate their audience and effectively communicate the significance of the research. They should also consider the appropriate platforms or mediums for delivering the content, tailoring their approach to the preferences and habits of their target audience.

Some examples that may be appealing include:

- Videos and virtual presentations
- Infographics
- Websites
- Social media
- Art
- Podcasts
- Maps

Some examples of what this might look like can be found in a guide produced by Alberta Health Services (2022).

Ethical Considerations

Translating academic research comes with ethical responsibilities. Media professionals must attribute the research properly, acknowledging the researchers and their institutions. It is essential to provide proper credit and citation to avoid any potential misrepresentation or plagiarism. They should also avoid sensationalism and ensure that their reporting is based on a balanced representation of the research. This includes considering alternative viewpoints or limitations of the research and providing a fair and comprehensive picture to the audience. Media professionals should be transparent about any conflicts of interest or potential biases that may influence the interpretation of the research. They should provide accurate, unbiased, and contextually

rich content to enable the audience to form their own informed opinions.

You can also use the examples and guidance laid out in chapter 4 of this textbook as you consider what consent means, anonymity, and confidentiality and how you show respect for the research and those writing about it.

Final Thoughts

The translation of academic research by media professionals plays a vital role in making scientific knowledge accessible and relevant to the general public. By understanding the research, identifying newsworthy angles, simplifying complex concepts, interviewing researchers, fact-checking rigorously, incorporating engaging storytelling techniques, and addressing ethical considerations, media professionals can bridge the gap between academia and the public. They have the power to communicate complex ideas in a way that resonates with readers or viewers, fostering a deeper understanding of scientific research and its implications. Through their work, media professionals enable the broader dissemination of knowledge, facilitate informed discussions, and contribute to the advancement of society as a whole. By effectively translating academic research, media professionals empower the public to make well-informed decisions, participate in meaningful debates, and appreciate the value of scientific inquiry.

Reflection Question

How would your approach as a media professional change when tasked with translating complex academic research into stories for the public? What strategies would you use to balance accuracy,

engagement, and ethical considerations in your storytelling? Document your thoughts in a 200–300-word post.

Key Chapter Takeaways

- Media professionals play a crucial role in translating complex academic research into accessible content for the general public. They bridge the gap between academia and the public by simplifying information, turning research into engaging stories, and amplifying the impact of academic work.
- Media professionals must thoroughly understand the research they are translating. This involves going beyond skimming abstracts and delving deep into methodologies, results, and implications. By immersing themselves in the research, media professionals can identify key points and limitations to form a foundation for effective storytelling.
- Media professionals need to be cautious about potential pitfalls when translating research. They should distinguish correlation from causation, avoid unsupported conclusions, consider sample sizes, and be aware of selective reporting or conflicts of interest. Ethical responsibilities include proper attribution, avoiding sensationalism, and maintaining accuracy.
- Translating complex research requires engaging storytelling techniques. Media professionals should focus on the key findings, eliminate technical jargon, use real-life examples, relate concepts to familiar ideas, and utilise visuals and audio. Incorporating multimedia elements and crafting narratives that connect emotionally with the audience can enhance the accessibility and impact of the content.

Key Terms

Knowledge Translation: The process of taking complex research findings designed for a specialised audience and making them accessible to a broader public.

Correlation versus Causation: The fact that two variables are correlated (have a relationship) does not necessarily imply a cause-and-effect relationship.

Unrepresentative Sample: If the sample differs significantly from the overall population, the conclusions drawn from a research study may be biased towards a specific outcome.

Control Group: A control group that does not receive the intervention being tested. Group allocation should be random.

Double- Blind Testing: In "double-blind" testing, even researchers are unaware of the group assignments until after the testing is complete. Blind testing is not always feasible or ethical.

Selective Reporting/ Cherry-picking: This involves selecting data that supports the research's conclusion while disregarding conflicting data.

Peer Review: The process in which other experts evaluate and critique studies before they are published in reputable journals.

Further Reading and Resources Cited

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