

Chapter 1

- The book emphasizes that there isn't a single "best way" to conduct research, but rather, researchers must make informed choices regarding their research philosophy, reasoning approaches, strategies, techniques, and procedures.
- The text highlights the importance of being open to unexpected findings and understanding that research applicability may not always be immediately obvious. It also stresses the value of discussing research ideas with others.
- The book distinguishes between "method", which refers to the procedures and techniques used to collect and analyze data, and "methodology", which refers to the theory of how research should be undertaken.
- The term "research" is often used loosely in everyday language, but true research involves more than just collecting facts or information. It requires a clear purpose, a systematic approach, and the interpretation of data.
- Research is defined as a systematic process with a clear purpose to find things out. This includes explaining the methods used to collect data, arguing for the meaningfulness of the results, and explaining any limitations.
- Business and management research is defined as systematic research to find out things about business and management and draws from other disciplines like sociology, psychology, and economics. It should also have the potential for practical consequences and impact on business and management practices.
- There is a concern for rigor in both quantitative and qualitative methods. Rigor includes both theoretical rigor (grounding in existing explanations) and methodological rigor (strength and quality of the research method).
- The text introduces four quadrants related to rigor and relevance:
 1. Pedantic science focuses on methodological rigor at the expense of relevance.
 2. Popularist science focuses on relevance, neglecting theoretical and methodological rigor.
 3. Puerile science lacks both methodological rigor and practical relevance.
 4. Pragmatic science is both theoretically and methodologically rigorous and relevant.
- The text discusses different modes of knowledge creation:
 1. Mode 1 is driven by academic interests with little focus on practical application.
 2. Mode 2 emphasizes a context governed by the world of practice, involving collaboration with practitioners.

3. Mode 0 is based on power and patronage.
 4. Mode 3 focuses on the human condition and aims to benefit humankind.
- The text addresses the "relevance gap" between academic research and management practice, highlighting the need for research to be both academically rigorous and practically useful. Some believe that this gap is unbridgeable while others disagree.
 - Responsible research in business and management requires findings to be both credible (rigorous) and applicable (relevant) to society. The Community for Responsible Research in Business and Management (cRRBM) offers seven principles to guide research.
 - The seven principles of responsible research are:
 1. Service to society
 2. Valuing both basic and applied contributions
 3. Valuing plurality and multidisciplinary collaboration
 4. Sound methodology
 5. Stakeholder involvement
 6. Impact on stakeholders
 7. Broad dissemination
 - Research projects can be placed on a continuum between basic research (undertaken purely to understand processes) and applied research (aimed at solving practical problems for managers).
 - The research process involves multiple stages, including: formulating a topic, reviewing literature, designing the research, collecting data, analyzing data, and writing up. These stages are not strictly linear and often overlap and require revisiting.
 - Keeping a reflective diary or research notebook is crucial for noting down experiences, lessons learned, and emerging thoughts. Reflection involves observing research practices, while reflexivity involves a recursive process of interpreting experiences and questioning research approaches.
 - The learning cycle involves concrete experience, observation and reflection, forming abstract concepts, and testing concepts in new situations.

Chapter 2

- **Generating a research idea and developing a research proposal** are crucial steps in a research project.
- **A good research idea** is characterized by appropriateness, capability, and fulfillment, but the most important aspect is that it **meets the requirements of the examining body**.
 - **Appropriateness** refers to the research idea fitting the specifications and standards set by the examining institution and having clear links to theory.
 - **Capability** means you have or can develop the necessary research skills within the project timeframe and have access to necessary resources like time and money.
- **Fulfillment** involves the research idea genuinely interesting and motivating you, and that it will contribute to your future aspirations.
- Generating and refining research ideas involves various techniques, including both **rational and creative thinking**.
 - **Rational thinking techniques** include examining your own strengths and interests, exploring academic staff research interests, looking at past project titles, discussing with others, searching existing literature, and scanning the media.
 - **Creative thinking techniques** involve keeping a notebook of your ideas, exploring personal preferences using past projects, exploring relevance to business of ideas in the literature, using relevance trees, and brainstorming.
- **Further refinement of research ideas** can be achieved by using the Delphi technique, conducting preliminary inquiries, and integrating ideas.
 - The **Delphi technique** involves using a purposive sample of knowledgeable participants to gather opinions and perceptions anonymously, then using this feedback to generate further questions until a consensus is reached.
 - A **preliminary inquiry** involves searching and evaluating literature and related sources and may include informal discussions or shadowing of employees.
 - **Integrating ideas** involves classifying ideas into an area, then a field, and finally the precise aspect of interest.
- **A clearly defined overarching research question** expresses what your research is about and becomes the focal point of your project.
 - It influences literature reviews, research design, access, sampling, data collection and analysis, and the project report.

- Research questions may be exploratory, descriptive, explanatory, or evaluative and often begin with 'what', 'when', 'where', 'who', 'why', 'how' or 'to what extent'.
 - It's important to ensure your research question is not too simple or too difficult, using the 'Goldilocks Test'.
 - The 'Russian doll principle' helps refine your question to its essence.
 - Dudau's (2016) AbC rule suggests your research question should include abstract concepts and the context of the research.
- A **research aim** is a brief statement of the research project's purpose, stating what you intend to achieve.
- **Well-formulated research objectives or investigative questions** operationalize your research by providing a set of coherent and connected steps to answer your research question.
 - These objectives or questions should have transparency, specificity, relevance, interconnectivity, answerability, and measurability.
- **Academic theory** is crucial to inform your research regardless of your approach and helps you formulate a question that leads to a theoretical explanation.
 - Theory is a systematic body of knowledge grounded in empirical evidence used for explanatory or predictive purposes.
 - Theory includes what concepts are examined, how they are related, and why they are related.
 - Good theory can explain, predict, and may have limitations in its generalizability.
 - Theory is not just references, data, lists of variables, diagrams, or hypotheses.
 - Theory informs research by guiding your questions and sensitizing you to the nature and importance of existing research.
 - Theory can be developed deductively (testing a theory) or inductively (developing a theory from data).
 - Theoretical contributions can be grand, middle-range, or substantive, and are useful for both academic and practical purposes.
- A **research proposal** is a structured plan of your proposed research project, providing a clear specification for your work.
 - It should provide a guide to your project, meet assessment criteria, and ensure ethical considerations are addressed, with an awareness of feasibility.
 - The proposal should demonstrate coherence and sincerity and ensure your research project is not based on preconceived ideas.
- **Structuring a research proposal** includes the following sections:
 - **Title:** A concise summary of the research question.
 - **Background:** Introduces the research issue, provides a rationale for the research question, and grounds the research in the academic literature.

- **Overarching research question(s), research aim and objectives or investigative questions:** States clearly what the research seeks to achieve.
- **Method:** Explains how the research will be undertaken, including research philosophy, design, participants, techniques and procedures, and ethical considerations.
- **Timescale:** Divides the project into constituent stages with estimated time for each.
- **Resources:** Includes a discussion of the financial, data access, and equipment requirements of the project.
- **References:** Lists key literature sources and methods literature.

Chapter 3

- **The Purpose of a Critical Literature Review:**

- A critical literature review is not merely a summary of articles and books; it requires reasoned judgments about the value of each work and the synthesis of ideas.
- It is essential for demonstrating an awareness of the current state of knowledge, its limitations, and how your research fits into the wider context.
- It helps to establish what relevant research has been published, identify key theories, concepts, and ideas, and major issues and debates.
- The review provides the foundation on which research is built, helping to develop a good understanding of previous research and trends.
- It also contextualizes your research in relation to previous work, providing background and justification for your research.

- **Being 'Critical' in Literature Review:**

- Being critical means making reasoned judgements and arguing effectively in writing.
- It involves questioning conventional wisdom and the dominant views portrayed in the literature, and acknowledging that knowledge is not value-free.
- It requires reading with skepticism, challenging what you read, and justifying your critical stance with clear arguments and references rather than personal opinion.
- Critical judgment includes identifying theories and findings most relevant to your research and considering contrasting perspectives.
- A critical review should assess the strengths and weaknesses of previous research, be balanced, and highlight areas where new research is needed.

- **Purposes of a Critical Review**

- A critical review provides a historical background to the research.
- It gives an overview of the research's context by locating it in contemporary debates and issues.
- It resolves conflicts among previous research.
- It discusses relevant theories and concepts.
- It defines and clarifies terms used in the research.
- It provides insights into related research and offers supporting evidence for research questions.

- **Forms of Critical Review:**

- Integrative reviews analyze main ideas and relationships in the literature.
- Theoretical reviews examine the body of theory related to an issue.
- Historical reviews examine the evolution of research over time.
- Methodological reviews focus on research approaches and data-collection techniques.

- Argumentative reviews selectively examine literature to support or refute positions.
- Systematic reviews use a pre-planned strategy to analyze existing research.
- **Content and Structure of a Critical Review:**
 - The review should evaluate previous research, show relationships between findings, and draw out key points and trends logically.
 - It should include key academic theories and show that your knowledge is up to date, enabling readers to find original publications through clear referencing.
 - Common structures for the review include a single chapter, a series of chapters, or throughout the project report, particularly in an inductive approach.
 - The review should start with a general overview before narrowing down to specific research questions, comparing and contrasting the key authors and highlighting what is relevant to the research.
 - A thematic approach is more effective than simply describing each author's work separately.
- **Literature Sources:**
 - **White literature sources** are formally published, peer-reviewed scholarly items, particularly journals.
 - **Grey literature sources** are items that have not been peer-reviewed, such as conference proceedings, dissertations, and government reports.
 - Academic journals are a vital source of literature, with articles accessed using full-text databases.
 - Books and monographs are useful for overviews and for finding recognized experts.
 - News media can be a source of topical events and recent information.
 - Reports include market analyses, government reports, and academic reports.
 - Conference proceedings can offer a wealth of specific information.
 - Theses are unique sources of detailed information, though they can be difficult to locate and access.
- **Planning a Literature Search:**
 - Plan your search to ensure you locate relevant and up-to-date literature.
 - Define your search parameters, including language, subject area, business sector, geographical area, publication period, and literature type.
 - Generate search terms using brainstorming, initial reading, dictionaries, and encyclopedias.
 - Relevance trees can structure your search by organizing headings and subheadings that describe your research question.
- **Conducting a Literature Search:**
 - Use a variety of approaches such as searching online databases, using references from already read material, browsing and scanning literature, general

online searching, and using institutional repositories and social networking platforms.

- Use online literature sources that provide access to academic literature.
- Start your search by obtaining relevant literature referenced in books and articles you have already read.
- Search databases using search strings with Boolean logic (AND, OR, NOT).
- Browse and scan literature to find new publications and use "snowballing" to follow up on references in identified publications.
- Keep full details of all searches, including the search tool used, the precise search terms, and the date.
- Use specialized search engines such as Google Scholar.
- Check your library online catalog to find out if you can access appropriate publications.

- **Reading Critically and Evaluating the Literature:**

- Employ strategies for intensive reading, including previewing, annotating, outlining, summarizing, analyzing, and comparing and contrasting.
- Ask critical questions to evaluate the relevance and credibility of the literature.
- Assess the relevance based on your research questions and objectives, and assess credibility by considering the quality of the research.
- Evaluate the sufficiency of your reading, ensuring you have covered key researchers and ideas in your field.

- **Note-Taking and Referencing:**

- Make notes as you read, ensuring you use quotation marks and note page numbers for direct quotes.
- Record bibliographic details, a brief summary of the content, and any supplementary information.
- Use bibliographic software to manage references.
- Record full Internet addresses (URLs) and digital object identifiers (DOIs) for online sources.

- **Using Systematic Review:**

- Systematic review is a replicable process for reviewing literature using a pre-planned strategy.
- It involves a comprehensive search, evaluation of contributions, analysis, and synthesis of findings.
- It is suitable for research projects with uncertainty about the effectiveness of policy or a need for evidence on a topic.
- It includes defining the scope and questions, searching literature, selecting and evaluating studies, analysis and synthesis, and reporting results.
- Use the PRISMA checklist and flow diagram to report the review.

- **Drafting your Critical Review:**

- Use the literature to contextualize and justify your research questions and objectives.
- Juxtapose different authors' ideas, compare and contrast, and form your own opinions and conclusions.
- Create a Thematic Analysis Grid to organize notes and identify patterns across themes.
- Ensure the key themes are presented logically, highlighting areas where your research will provide fresh insights.
- Explain how the included literature was selected, outlining your choice of search terms and databases used.

- **A Note About Plagiarism:**

- Plagiarism is presenting someone else's work or ideas as your own without proper acknowledgement.
- It includes quoting without acknowledgement, cutting and pasting from the internet, paraphrasing without acknowledgement, colluding, inaccurate referencing, failing to acknowledge assistance, using materials from others, and self-plagiarizing.
- Universities have clear guidelines on plagiarism, and it is the responsibility of the individual student to be aware of these regulations.

Chapter 4

- **Introduction to Research Philosophy:**

- The chapter emphasizes that research involves not just data collection but also a deep understanding of the underlying **philosophical assumptions** that shape the entire process.
- It highlights that choices about data collection procedures are made within a broader framework of philosophical beliefs and assumptions, which need to be understood and explained.
- The chapter focuses on the outer two layers of the 'research onion': philosophy and approaches to theory development.
- It stresses the importance of understanding how philosophical positions relate to choices about methodology and strategy.
- The chapter encourages **reflexivity**, urging researchers to examine their own beliefs and assumptions, as this will influence the research questions and methods used.

- **The Significance of Philosophy in Business Research:**

- Research philosophy is defined as a system of beliefs and assumptions about the development of knowledge.
- It sets the worldview within which research is conducted and shapes how data is interpreted and which data are considered important.
- Researchers make assumptions about **ontology** (the nature of reality), **epistemology** (the nature of knowledge), and **axiology** (the role of values).
- A consistent set of assumptions leads to a credible research philosophy that underpins the entire research project.
- Philosophical commitments impact what researchers do and how they understand their investigations, making consistency between assumptions and research design crucial for trustworthy findings.

- **Decolonization and Research:**

- The chapter notes that researchers' beliefs and assumptions affect data collection and interpretation.
- It highlights the influence of colonial perspectives on the interpretation of data, especially in colonized countries.
- The chapter argues that it is necessary to recognize and address the impact of such beliefs, especially in shaping research questions, methods and interpretations.
- It uses the example of early colonialists in Australia to show how taken-for-granted assumptions and cultural beliefs can lead to biased interpretations of data, ignoring Indigenous knowledge and practices.
- The chapter stresses the importance of decolonization in reversing the privileging of certain interpretations and acknowledging diverse perspectives.

- **The Research Onion:**
 - The research onion is a diagram depicting the range of factors underlying choices about data access, ethics, sample selection, collection, and analysis.
 - The outer layers include **philosophy** and **approach to theory development**, followed by **methodological choice**, **strategy**, **time horizon**, and finally, **procedures and techniques**.
 - The chapter emphasizes that there are clear links between the layers but that these are not deterministic, requiring careful understanding and explanation of the aspects that are important to the research.

- **Philosophical Assumptions:**
 - **Ontological assumptions** concern the nature of reality and how researchers view their research objects, which in business and management, includes organizations, management, individuals' working lives, and organizational events. Different ontological assumptions can lead to different research focuses, such as how resistance to change can benefit organizations rather than how to eliminate it.
 - **Epistemological assumptions** relate to what constitutes acceptable, valid, and legitimate knowledge, and how knowledge is communicated. These assumptions determine the methods used, for example, a positivist epistemology often leading to quantitative research, while other approaches may use archival research, narratives, or film.
 - **Axiological assumptions** concern the role of values and ethics in the research process and how researchers' values influence their work. Researchers must be aware of their values and how these influence their choices, as well as the ethical implications of decisions.

- **Objectivism vs. Subjectivism:**
 - Research philosophies are positioned along a multidimensional set of continua between **objectivism** and **subjectivism**.
 - **Objectivism**, often associated with natural sciences, considers social reality as external to individuals, focusing on universal and enduring phenomena. Objectivists seek observable facts and aim for value-free, detached research.

- **Subjectivism**, associated with arts and humanities, considers social reality as constructed by the perceptions and actions of social actors. Subjectivists focus on the multiple realities and incorporate their own values in their research.

- **Research Paradigms:**
 - Research paradigms are related to the political or ideological orientations of researchers towards the social world, with two extremes: **regulation** and **radical change**.
 - The **regulation perspective** focuses on the need for societal regulation, and much business research is placed here, seeking to improve current systems. The

radical change perspective seeks to fundamentally challenge existing practices, offering alternative viewpoints.

- The chapter presents Burrell and Morgan's four paradigms which combine the objectivism-subjectivism and regulation-radical change dimensions: **functionalist**, **interpretive**, **radical structuralist**, and **radical humanist**.
- The functionalist paradigm is objectivist and regulation-focused, while the interpretive paradigm is subjectivist and regulation-focused. The radical structuralist paradigm is objectivist and radical change-focused, and the radical humanist paradigm is subjectivist and radical change-focused.
- **Five Major Research Philosophies:**
 - **Positivism** emphasizes observable social reality and aims to produce law-like generalizations. Positivists utilize a scientific method focusing on facts and numbers and try to remain value-free and detached.
 - **Critical realism** focuses on explaining observable events through underlying structures, acknowledging reality as external but not directly accessible. It is characterized by historical analysis of social structures and embraces epistemological relativism and aims to be as objective as possible while minimizing bias.
 - **Interpretivism** studies human meanings, emphasizing that people create meaning in their social worlds. Interpretivists value language, culture and history and adopt an empathetic stance, collecting what is meaningful to participants and recognizing researcher subjectivity.
 - **Postmodernism** emphasizes the role of language and power relations, seeking to question accepted ways of thinking and give voice to marginalized views. Postmodernists focus on ongoing processes rather than fixed entities and aim to deconstruct dominant realities and expose power relations.
 - **Pragmatism** asserts that concepts are only relevant where they support action. Pragmatists aim to reconcile objectivism and subjectivism and focus on practical problem solving. The values of the researcher guide the reflexive process of inquiry.
- **Approaches to Theory Development:**
 - The chapter distinguishes between three main approaches to theory development: **deductive**, **inductive**, and **abductive**.
 - **Deductive reasoning** starts with a theory and tests it through data collection. This approach is often used when there is existing theory to build upon.
 - **Inductive reasoning** starts by collecting data to explore a phenomenon and generate theory. This approach is useful when little existing theory is available, and is often used by interpretivists.
 - **Abductive reasoning** begins with a surprising fact and develops possible explanations, moving between data and theory in an iterative process. Abduction is used by critical realists, postmodernists and pragmatists and is often employed

in case studies.

- **Implications for Research Design:**

- The choice of approach to theory development enables researchers to make more informed decisions about the overall research design, and make choices about research strategies, methodologies, and the type of evidence needed.
- Knowledge of these traditions allows for research design adaptation to constraints such as limited data or prior knowledge, and influences choices about the data to collect.
- The choice depends on research philosophy, emphasis, and topic and also on practical considerations, risk, and preferred style of the researcher.
- Deduction is quicker but less flexible, while induction and abduction are more flexible but often slower.

Chapter 5

- **Introduction to Research Design:**

- Chapter 5 builds upon the previous chapter by focusing on the next three layers of the research onion: **methodological choice, research strategy, and time horizon**.
- Research design is defined as the plan to convert a research question or aim and objectives into a research project. It's the overall plan for your research project.
- A key element is achieving a **coherent design** that aligns with the research philosophy and approach to theory development.
- The research process is compared to planning a journey, with the research aim as the destination, objectives as route criteria, and the research design as the route.
- The research design specifies the data sources, collection methods, analysis techniques, ethical issues, and potential constraints.
- A well-thought-out research design must be clear, coherent, and justifiable, with valid reasons for each decision.

- **Research Purpose:**

- The purpose of research is categorized as **exploratory, descriptive, explanatory, or evaluative**, or a combination of these.
- **Exploratory studies** aim to clarify understanding of an issue or problem, often using "what" or "how" questions and adapting to new data.
- **Descriptive studies** aim to provide an accurate profile of events, people, or situations, often using "who," "what," "where," "when," or "how" questions. They serve as a means to an end rather than an end in itself.
- **Explanatory studies** aim to establish causal relationships between variables using "why" or "how" questions.
- **Evaluative studies** assess how well something works and make comparisons, using "how" or "to what extent" questions.
- A single study can combine multiple purposes using multi or mixed methods.

- **Methodological Choice:**

- Researchers must choose between **quantitative, qualitative, or mixed methods** research designs.
- **Quantitative research** involves numeric data, using techniques like questionnaires and statistics.
- **Qualitative research** involves non-numeric data, like words, images and recordings, using techniques such as interviews and narrative analysis.
- **Multi-method designs** use more than one data collection procedure within the same methodological approach, and are referred to as multi-method quantitative or multi-method qualitative designs.
- **Mixed methods research** combines both quantitative and qualitative approaches.

- The choice of methodology is influenced by the research question, philosophy, and approach to theory development.
- **Quantitative Research Designs:**
 - Quantitative designs are often associated with **positivism** and are also used within realist and pragmatist philosophies.
 - They usually follow a **deductive approach** to test theory, but can also incorporate an inductive approach to develop theory.
 - Quantitative research examines relationships between variables using numerical data, often with controls to ensure data validity.
 - They use **probability sampling** techniques for statistical generalizability.
 - Quantitative research can be **mono-method** (using one data collection technique) or **multi-method** (using more than one).
 - Quantitative strategies are associated with **survey** and **experiment** research, but quantitative data and analysis techniques can be used in other strategies too.
- **Qualitative Research Designs:**
 - Qualitative designs are often associated with **interpretivism**, focusing on socially constructed meanings, but can be used in realist and pragmatist approaches.
 - They often use an **inductive approach** to build theory or an abductive approach, but may also start with a deductive approach.
 - Qualitative research studies participants' meanings and relationships through various data collection and analytical techniques.
 - Researchers need to build rapport to gain cognitive access to participant's data.
 - Qualitative data is non-standardized, requires classification for analysis and is collected using unstructured or semi-structured methods.
 - Qualitative research often uses **non-probability sampling** techniques.
 - Qualitative research can be **mono-method** or **multi-method**.
 - Qualitative strategies include **action research, case study research, ethnography, grounded theory, and narrative inquiry**.
- **Mixed Methods Research Designs:**
 - Mixed methods research designs combine quantitative and qualitative techniques and are often associated with **pragmatism and critical realism**.
 - They can use deductive, inductive, or abductive approaches to theory development.
 - They combine quantitative and qualitative procedures and techniques in simple, concurrent, or more complex and sequential forms.
 - Mixed method designs include **concurrent triangulation, concurrent embedded, sequential exploratory, sequential explanatory, and sequential multi-phase designs**.
 - Mixed methods can have one methodology as dominant and one as supporting.
 - Mixed methods can use quantitative and qualitative methods at every or only certain stages of research, resulting in fully or partially integrated designs.

- Data can be "quantitized" or "qualitized," although the latter is rare.
- **Embedded mixed methods** have one methodology supporting the other, in concurrent or sequential designs.
- **Research Strategies:**
 - A research strategy is the methodological link between philosophy and data collection methods.
 - A variety of research strategies exist in business and management, and the key is achieving **coherence** between the strategy, research questions, objectives, philosophy, and theory development approach.
 - Research strategies are not mutually exclusive and can be combined.
- **Specific Research Strategies:**
 - **Experiments** study the probability of a change in an independent variable causing a change in another, dependent variable. They involve formulating and statistically testing opposing hypotheses: the **null hypothesis** and the **alternative hypothesis**.
 - Experimental designs include **classical experiments, quasi-experiments, and within-subject designs**, and include pre-test and post-test measures.
 - **Surveys** are used for descriptive, exploratory, and explanatory research. They are popular for collecting standardized data from a large number of respondents.
 - **Ethnography** studies the social and cultural world of a group through first-hand study. It includes realist, interpretive, critical, and autoethnography.
 - **Grounded Theory** is a strategy for developing theory from data, using coding, constant comparison, memo writing, theoretical sampling, and theoretical saturation.
 - **Narrative Inquiry** collects participants' experiences as whole accounts, analyzing the meanings within them.
 - **Archival and Documentary research** uses manuscripts, documents, and other materials as data.
 - **Case studies** involve in-depth inquiry into a topic within its real-life setting. They can be descriptive, exploratory or explanatory and can use single or multiple cases, and holistic or embedded designs.
 - **Action Research** is a participative and collaborative strategy to solve real-world problems by diagnosing issues, planning action, taking action, and evaluating action, and usually involves multiple iterations of these steps.
- **Time Horizons:**
 - Research can be **cross-sectional** (a snapshot at one point in time) or **longitudinal** (studying changes over time).
 - Cross-sectional studies can use various research designs and strategies to investigate a phenomena at one given point in time.
 - Longitudinal studies are useful for studying change and development, and can use various research designs and strategies to investigate a phenomena over a

given time period.

- **Ethical Considerations:**

- Research designs must minimize the risk of harm to participants, and researchers, and researchers should anticipate potential ethical issues, as well as address these at the design stage.
- Researchers need to consider whether to collect data covertly (without participant consent), though this may be precluded by university ethics procedures.

- **Assessing Research Quality:**

- Research quality is assessed through criteria such as **reliability**, **validity**, and **authenticity**.
- **Reliability** is the consistency of data collection procedures. It can be internal (consistency within the study) and external (consistency if replicated).
- **Validity** is the extent that procedures measure what they intend to and refers to the accuracy of the analysis, and how well findings can be generalized, and can be considered in terms of measurement validity, internal validity and external validity.
- Different research philosophies may lead to different terms used to assess validity and reliability
- Interpretivist researchers have adapted the concept of validity and reliability using parallel versions such as **dependability**, **credibility** and **transferability**.
- Alternative concepts such as **authenticity** may be used to assess qualitative research.
- **Triangulation** involves using multiple data sources and collection methods to validate findings.
- **Participant or member validation** involves getting feedback from participants to confirm data accuracy.
- Researchers need to ensure that their research design is logical, systematic, and free from false assumptions and claims.

- **Researcher Role:**

- The researcher's role (internal or external) affects research design.
- **External researchers** must negotiate access, gain trust, and consider their level of engagement with participants.
- **Internal (practitioner) researchers** must be aware of their assumptions, potential for bias, and practical constraints.

Chapter 6

- **Introduction**

- Access and ethics are crucial for research success, whether using secondary or primary data, and whether the research is conducted face-to-face or remotely.
- Careful thought is needed on how to gain access for data collection and about potential ethical concerns throughout the project.
- Failing to consider access and ethics can make a research idea impractical or problematic and potentially harm those being researched.
- Business and management research often involves people, so ethical concerns are high when human participants are involved.
- Universities and organizations require formal research ethics committee approval before data collection can begin.
- Researchers must be clear with participants about how they will address potential ethical concerns.

- **Characteristics of Access**

- Gaining access to appropriate sources is essential for collecting primary or obtaining secondary data.
- The appropriateness of a source depends on the research question, objectives, and design.
 - **Type of access** focuses on the nature of interactions with participants.
 - **Traditional access** involves face-to-face interactions, telephone conversations, correspondence, or visiting data archives.
 - **Internet-mediated access** uses online technologies like email, video-conferencing, and apps.
 - **Intranet-mediated access** involves virtual access within an organization using its intranet.
 - **Hybrid access** combines both Internet-mediated and traditional means.
 - **Nature of access** indicates whether data is collected from single or multiple organizations or groups, or from individuals without organizational affiliation.
 - **Single-organization access** is sufficient for many projects.
 - **Multi-organization access** is needed for some projects.
 - **Individual person access** involves collecting data from individuals who do not have an organizational affiliation.
 - **Elite person access** is for individuals who are notable in their field and not necessarily organizationally affiliated.
 - **Levels of access** involve a multi-faceted process of negotiation across different levels.
 - **Physical/virtual access** is the initial agreement to conduct research, whether face-to-face or online.
 - **Continuing access** recognizes that access is an ongoing process rather than a single event.

- **Cognitive access** involves gaining the acceptance and trust of intended participants, which is needed to obtain consent and collect data.
 - Access can be difficult to gain because organizations, groups, or individuals may not want to participate in voluntary activities due to the required time and resources.
 - Gatekeepers can refuse access due to lack of perceived value, sensitivity of the topic, or the researcher's lack of credibility.
 - Organizations may also refuse access for reasons unrelated to the research such as undergoing a strategic review.
 - **Leverage-saliency theory** recognizes that different people respond to requests to participate in research differently, based on how salient the request is to them.
 - It is important to make the request appeal to all potential participants to reduce non-response error.
 - The access negotiated will impact on the ability to select suitable participants or secondary data and whether your data are likely to be valid and reliable.
 - **Feasibility** is whether it is practicable to negotiate access.
 - **Sufficiency** is the extent to which the access negotiated will be enough to answer the research question and achieve the objectives.
- **Researcher Status**
 - Access is not straightforward and requires persistence and emotional resilience.
 - Researchers should consider where they are likely to be able to gain access and amend their topic and design to reflect the nature of access.
 - **External researchers** have little or no prior contact with the organization or group and will need to negotiate access at each level, and goodwill from the organization will be required.
 - External researchers may be seen as more objective and without a hidden agenda which can be beneficial when seeking access.
 - **Internal researchers or participant researchers** are employees or group members and may still face problems negotiating physical or continuing access.
 - Internal researchers may face suspicion about the purpose of their research and how the data collected will be used.
- **Internet-Mediated Access**
 - Internet-mediated access became more common during the COVID-19 pandemic.
 - It can be challenging to find suitable online participants and secondary data which can lead to data quality issues.
 - Both quantitative and qualitative data can be collected online.
 - Online communities provide a large amount of material, often accessible to researchers.
 - Internet-mediated access is subject to the same issues that affect traditional access.

- The most suitable way to conduct research and negotiate access depends on the research question and objectives.
- Researchers may need to negotiate virtual access from a gatekeeper to gain access to a sample of members.
- Researchers must ensure that intended participants are aware of the research, its purpose, how it will be used and what is required of them.
- Gaining access to an organization and participants may involve a hybrid strategy.
- Researchers need to identify appropriate samples and negotiate virtual and cognitive access with intended participants.

- **Strategies to Gain Access**

- Strategies used depend on the research design, data-collection methods, and the characteristics of access required.
- **Ensuring familiarity** with the organization, group, or individual is essential before contact.
- **Allowing sufficient time** is important as access can take weeks or months.
- **Using existing contacts** like colleagues and friends makes access more likely.
- **Developing new contacts** by approaching professional associations or organizations can be useful.
- **Providing a clear account** of the research purpose, and the type of access needed is essential.
- **Overcoming concerns** about time, sensitivity, confidentiality, and anonymity is important.
- **Identifying possible benefits** of participating can increase the likelihood of access.
- **Using suitable language** that is appropriate to the person being contacted is also vital.
- **Facilitating replies** by including different contact methods helps ensure a response.
- **Developing access incrementally** can be advantageous.
- **Establishing researcher credibility** with those from whom data will be collected means repeating much of the process used to gain entry to the organization.

- **Research Ethics and Acting Ethically**

- Research ethics are standards of behavior that guide conduct in relation to the rights of those being researched.
- **Deontological** and **teleological** are two dominant ethical positions.
 - The deontological view is based on following rules, and acting outside of them can never be justified.
 - The teleological view is based on consequences, where conduct is determined by whether the benefits of an act outweigh the negative consequences.
- Codes of ethics are developed to overcome ethical dilemmas.
- Researchers need to exercise choice based on ethical principles and standards.

- **Ethical review** is guided by the university's or professional association's code of ethics.
 - Researchers should expect to submit their proposal for ethical review.
 - Ethical review may be conducted by a project tutor, other academic staff, or an ethics committee.
 - Full ethical reviews are required for research proposals with ethical concerns.
 - Research ethics committees are responsible for all aspects of ethical review and approval.
 - Some research projects may also need to satisfy the requirements of a host organization's ethics committee.
 - Codes of ethics aim to avoid poor practice, malpractice, and harm (non-maleficence) and promote ethical practice, integrity, respect, fairness, and public good (beneficence).
 - To avoid harm, or at the very least to minimize it, it is necessary to evaluate risk in terms of the likelihood of harm occurring and the extent or severity of the harm.
 - **Ethical Principles** include:
 - Integrity, fairness, and open-mindedness of the researcher.
 - Respect for others.
 - Avoidance of harm (non-maleficence).
 - Privacy of those taking part.
 - Voluntary nature of participation and right to withdraw.
 - Informed consent of those taking part.
 - Ensuring confidentiality of data and maintenance of anonymity of those taking part.
 - Responsibility in analysis of data and reporting of findings.
 - Compliance in management of data.
 - Ensuring safety of researchers.
 - It is important to be realistic about the benefits of the research and honor promises about sharing findings.
- **Ethical Issues Associated with Internet-Mediated Research**
 - Internet use raises issues about the applicability of ethical principles.
 - Guidance focuses on general principles, highlighting issues and dilemmas raised by online communications.
 - **Deception** can occur when researchers join online communities intending to collect data without seeking consent.
 - **Lacking respect and causing harm** can occur when researchers 'harvest' data without knowledge or permission.
 - **Respecting privacy** means treating online content as private conversations even if publicly accessible.
 - **Nature of participation and scope to withdraw** is critical due to mass surveillance and potential misuse of personal data.
 - **Informed consent** can be obtained by contacting online community moderators or explicitly asking participants.

- **Confidentiality and anonymity of participants** are important even when online discussions offer a permanent record.
 - **Analysis of data and reporting of findings** may involve dilemmas about open or anonymous use of data.
 - **Data management** must comply with data protection legislation, especially regarding the security of data transmission and storage.
 - **Researcher safety** can be enhanced by using university email addresses and protecting privacy on social media sites.
 - **Netiquette** refers to user standards for courtesy, especially in email and messaging.
 - Ethical considerations need to be anticipated and revisited at each stage of research.
- **Ethical Issues at Specific Research Stages**
 - Ethical issues are important throughout the research project.
 - **Research topic formulation and clarification** must anticipate ethical concerns related to the research purpose, data collection, and implications for participants.
 - **Research design and data access** should be planned ethically, considering a university's code of ethics and making adaptations to strategy and methods where needed.
 - **Gaining access** can raise ethical issues when pressure is applied to intended participants or through the nature and timing of the approach.
 - **Gaining consent** is not always straightforward; it can range from lack of consent, through inferred consent, to informed consent.
 - **Participant information sheets** should provide details about the research, requirements of taking part, implications, rights, data use, and whom to contact for concerns.
 - **Consent forms** are a detailed written agreement to clarify boundaries of consent.
 - During **data collection** there can be ethical issues.
 - Even after a consent form has been signed, participants maintain their right to withdraw or decline.
 - Data must be collected accurately and fully, without falsification or fabrication.
 - Confidentiality and anonymity are important to maintain.
 - Appropriate behavior, and avoiding overzealous questioning, is required.
 - **Reactivity and covert research** are ethical concerns when using observation.
 - **Debriefing** is used to inform participants about the nature of the research, its outcomes, and to ascertain any adverse consequences.
 - Researchers' **personal safety** is important; researchers should not reveal personal information and must consider a range of risk factors.
 - During **data processing and storage**, confidentiality, anonymity, and the security of personal data must be managed lawfully.

- **Data management plans** should outline how data will be collected, organized, stored, and shared.
 - Files containing confidential or personal data must be properly labeled and kept secure.
- During **data analysis and reporting of findings**, objectivity must be maintained to avoid misrepresenting the data.
 - Confidentiality and anonymity must be maintained, and care taken in not revealing participant identities.
 - Researchers should be careful in how they use conclusions and any course of action suggested.
 - Researchers should also consider the ethical issues that arise from analysis of secondary data.
- **Data Protection Principles**
 - Data protection legislation focuses on protecting **personal data**, defined as data that can identify a living individual.
 - The **General Data Protection Regulation (GDPR)** provides protection in relation to the processing of personal data.
 - Both EU and UK GDPRs set out rules for processing and movement of personal data.
 - The GDPRs establish seven principles regarding personal data:
 - Processed lawfully, fairly, and transparently.
 - Collected for specified, explicit, and lawful purposes.
 - Adequate, relevant, and limited to the purpose.
 - Accurate and kept up to date.
 - Kept in a form allowing identification for no longer than necessary.
 - Kept securely and protected from wrongful processing or damage.
 - Held responsibly by the controller.
 - Data can only be processed if necessary for a specific purpose, and the data subject has given consent.
 - Sensitive personal data can only be processed under certain conditions.
 - Data subjects have rights to access, rectify errors, be forgotten, and restrict processing.
 - Unless there is a clear need for personal data, it is best to use **anonymized data**, to which the GDPRs do not apply.
 - There are various techniques for anonymizing data.

Chapter 7

- **Introduction to Sampling**

- Sampling is often necessary in business and management research due to limitations of time, money, and access.
- Sampling procedures allow researchers to reduce the amount of data needed by focusing on a subgroup instead of the entire population.
- Some research requires samples that allow statistical generalization, while others do not.
- The full set of cases from which a sample is taken is called the **population**. The term "population" is not used in its normal sense, as the full set of cases need not be people.
- A sample should represent the population in a meaningful way.
- Advertisers are expected to substantiate claims, necessitating careful consideration of sample size.

- **The Need to Sample**

- Sampling provides a valid alternative to a census when surveying the entire population is impractical due to size or inaccessibility.
- Sampling is also useful when data collection destroys the element, when budget or time constraints prevent surveying an entire population.
- Sampling can sometimes lead to higher overall accuracy than a census, particularly when non-response is carefully considered.
- A sample must enable the researcher to answer their research question.

- **Defining the Research Population**

- The sample should be related to the population highlighted in the research question.
- The **target population** is a more manageable subset of the population that is the focus of the research.
- Using a sample from a target population to make inferences about a wider population may result in biased conclusions.

- **Overview of Sampling Procedures**

- Sampling techniques are divided into **probability** and **non-probability** sampling.
- Probability sampling is chosen when statistical explanations, estimates, or inferences are needed.
- Non-probability sampling is chosen when seeking understandings and insights and making reasoned judgements to generalize to theory.
- **Probability sampling** is used to generalize statistically about a target population, while **non-probability sampling** is used to develop theoretical generalizations based on analytic generalizability.

- **Probability Samples**

- In probability sampling, the chance of each case being selected from the target population is known and usually equal.
- Probability sampling is often used with survey and experiment research strategies.
- Probability sampling requires a **sampling frame**, which is a complete list of all the cases in the target population.
- The four stages of probability sampling are:
 - Identify a suitable sampling frame.
 - Decide on a suitable sample size.
 - Select the most appropriate sampling procedure and select the sample.
 - Assess the sample's representativeness of the target population.
- Probability sampling is not recommended for target populations of fewer than 50 cases.

- **Non-probability Samples**

- Non-probability sampling is used when a sampling frame is unavailable or when probability sampling is not appropriate.
- With non-probability sampling, the probability of each case being selected is not known.
- Non-probability sampling is suitable for gaining insights and understanding rather than statistical inference.
- Non-probability sampling often involves subjective judgment.
- Non-probability samples have become more prevalent with the growth of online questionnaires.
- Non-probability sampling can be used for in-depth studies that focus on a small number of cases.
- The stages for non-probability sampling are:
 - Consider a likely sample size and review as data are collected and analyzed.
 - Select the most appropriate sampling procedure and select the sample.

- **Probability Sampling - Sampling Frame**

- A sampling frame is essential for probability sampling.
- Existing databases used for sampling frames may be incomplete, inaccurate, or out of date.
- It is important to ensure that a sampling frame is as complete, accurate, and up-to-date as possible.
- If no suitable list exists, researchers must compile their own sampling frame.
- The way a sampling frame is defined has implications regarding the extent to which generalizations can be made.
- Researchers should not generalize statistically beyond the sampling frame.
- When using purchased database lists, researchers should determine how the sample will be selected, and should obtain an indication of the database's

completeness, accuracy and currency.

- **Probability Sampling - Sample Size**

- Generalizations about target populations from probability samples are based on statistical probability.
- The larger the sample size, the lower the likely error in generalizing to the target population.
- Sample size is a compromise between accuracy and the resources invested.
- Sample size is governed by: the confidence level, the margin of error, the size of the target population, and the statistical analyses to be undertaken.
- Statistical inference allows researchers to calculate the probability that a result could have been obtained by chance given the sample size.
- Larger samples are more likely to be representative of the target population.
- Researchers normally work to a 95 percent level of certainty.
- The confidence level states the precision of the estimates of the target population as the percentage that is within a certain range or margin of error.
- The smaller the sample and the smaller the relative proportion of the target population sampled, the greater the margin of error.
- Specific statistical analyses may determine the threshold sample size for individual categories.
- A sample size of 30 or more will usually result in a sampling distribution for the mean that is very close to a normal distribution.

- **Probability Sampling - Response Rates**

- A representative sample is one that exactly represents the target population.
- Researchers need to obtain a high response rate to reduce the risk of non-response bias.
- Non-respondents are different from the rest of the target population, and this can lead to bias.
- Four levels of non-response can be reported: complete refusal, break-off, partial response, and complete response.
- Non-response is due to refusal, ineligibility, inability to locate the respondent, or inability to make contact.
- The total response rate and the active response rate can be calculated.
- The active response rate excludes ineligible and unreachable respondents.

- **Probability Sampling - Estimating Response Rates and Sample Size**

- It is important that the sample size is large enough to provide the necessary confidence in the data.
- Researchers need to estimate the likely response rate and increase the sample size accordingly.
- The actual sample size can be calculated using the formula: $na = (n * 100) / re\%$, where na is the actual sample size required, n is the minimum (or adjusted

minimum) sample size and re% is the estimated response rate expressed as a percentage.

- For secondary data, the response rate should be virtually 100 percent.
- For general business and management studies, response rates of approximately 50 percent and 35 to 40 percent respectively are reasonable.
- Response rates vary considerably when collecting primary data.
- Response rates vary depending on the mode of questionnaire delivery.
- Researchers should report whether the questionnaire was administered or truly voluntary, and provide sufficient detail regarding how the sample was selected and the questionnaire distributed and returned.

- **Probability Sampling - Procedures**

- Four main procedures for selecting a probability sample are: simple random, systematic random, stratified random, and cluster.
- The choice of procedure depends on the research questions, objectives, need for face-to-face contact, and geographical area.
- **Simple random sampling** involves selecting the sample at random from the sampling frame.
 - Cases are selected using random numbers until the actual sample size is reached.
 - Simple random sampling is best used when you have an accurate and easily accessible sampling frame.
- **Systematic random sampling** involves selecting the sample at regular intervals from the sampling frame.
- A random number is used to decide where to start on the sampling frame.
- Researchers must be careful when using existing lists to avoid periodic patterns.
- Systematic random sampling works equally well with a small or large number of cases.
- **Stratified random sampling** involves dividing the target population into strata, and then drawing a random sample from each stratum.
 - The stratification variable should represent the discrete characteristics for which you want to ensure correct representation.
- **Cluster sampling** involves dividing the target population into clusters and selecting a few clusters, often using simple random sampling.
 - In one-stage cluster sampling, data are collected from every case within the selected clusters.
 - The technique normally results in a sample that represents the target population less accurately than stratified random sampling, but it maximizes the amount of data that can be collected using face-to-face methods.

- **Probability Sampling - Representativeness**

- It is often possible to compare data from a sample with data from another source for the population.

- If there is no statistically significant difference, then the sample is representative with respect to those characteristics.
 - Representativeness can also be assessed by replicating the findings using a new sample or by resurveying non-respondents.
- **Non-Probability Sampling - Sample Size**
 - For non-probability samples, the issue of sample size is about which cases need to be selected rather than how many cases need to be selected.
 - Sample size is dependent on the research questions, objectives, what needs to be found out, and what can be done within available resources.
 - Qualitative data collection continues until data saturation is reached, meaning additional data collected provide little new information.
 - Sample sizes for qualitative interviews may range from four to 30 participants, depending on the homogeneity of the group.
 - Researchers should report whether any new information was provided or new themes or insights suggested for each additional case or element from which data is collected.
- **Non-Probability Sampling - Procedures**
 - Non-probability sampling procedures range from quota sampling to haphazard sampling.
 - **Quota sampling** tries to represent the total population, often as an alternative to probability sampling.
 - Quota sampling is based on the premise that the variability in the sample for various quota variables is the same as that in the target population.
 - The sample is divided into groups with a calculated quota for each group based on relevant data.
 - Quota sampling is less costly than probability sampling and can be set up quickly.
 - Calculations of quotas are based on relevant and available data.
 - For online panel data it is important to establish whether panel members receive an incentive and the implications of this.
 - The participation rate is the number of respondents providing a usable response divided by the number of respondents invited to participate.
 - **Purposive sampling** uses judgement to select cases that best answer the research question.
 - Purposive sampling is often used with small samples, such as in case study research.
 - **Extreme case sampling** focuses on highly unusual cases.
 - **Intensity sampling** selects cases that richly reveal the phenomenon of interest.
 - **Heterogeneous sampling** chooses participants with diverse characteristics to provide the maximum variation possible in data collected.

- **Homogeneous sampling** focuses on one particular subgroup.
 - **Typical case sampling** provides an illustrative profile using a representative case.
 - **Critical case sampling** selects critical cases on the basis that they make a point dramatically or because they are important.
 - **Politically important sampling** relies on judgement regarding anticipated politically sensitive issues when deciding whether to include potential participants.
 - **Opportunistic sampling** acknowledges how unforeseen opportunities can occur and how to make a decision on their fit.
 - **Theoretical sampling** is associated with grounded theory, and participants are chosen to inform emerging theory.
- **Snowball sampling** is used when it is difficult to identify members of the desired population; it involves asking initial cases to identify further cases.
- **Self-selection sampling** occurs when cases identify their desire to take part in the research.
- **Haphazard sampling** occurs when sample cases are selected without any obvious principles of organization, the most common form being convenience sampling.
 - Convenience sampling is prone to many sources of bias and influences that are beyond the researcher's control.
- **Mixed and Multi-stage Sampling Designs**
 - **Mixed sampling** combines data from two or more discrete samples, each using probability or non-probability sampling.
 - **Multi-stage sampling** refers to any design that occurs in two or more successive stages using either probability, non-probability, or both types of sample selection.
 - Multi-stage sampling can use cluster sampling to overcome problems associated with a geographically dispersed population.
 - Where multi-stage sampling uses probability procedures, researchers need to ensure that sampling frames are appropriate and available.

Chapter 8

8.1 Introduction

- Secondary data is data that was initially collected for a different purpose but can be re-analyzed to answer new research questions.
- Secondary data includes both raw data and published summaries.
- Many students overlook secondary data, preferring to collect new primary data, despite the potential of secondary data.

8.2 Types of Secondary Data and Uses in Research

- Secondary data can be quantitative (numeric) or qualitative (non-numeric).
- Secondary data is used in both descriptive and explanatory research.
- Secondary data can be:
 - **Raw data:** little or no processing
 - **Compiled data:** selected or summarized data
 - **Structured data:** organized in a defined format, easy to process
 - **Unstructured data:** not easy to search or process
- Secondary data may be combined from multiple sources to create larger data sets.
- Secondary data is frequently used in case study and survey research, but can also be used in archival, action, and experimental research.
- The three main types of secondary data are:
 - **Survey data:** includes census, continuous/regular, and ad-hoc surveys
 - **Document data:** text, audio, and visual/audio-visual media
 - **Multiple-source data:** compiled from various sources to create snapshots, longitudinal data or continually updated data

8.2.1 Survey Secondary Data

- Survey data is usually quantitative and structured, often collected through questionnaires.
- It typically refers to data about organizations, people, or households.
- **Census surveys** are carried out by governments and are obligatory, offering comprehensive population coverage.
- **Continuous/regular surveys** are repeated over time, including those collected throughout the year or at regular intervals.
- **Ad-hoc surveys** are one-off surveys, often more specific in subject matter, and may be difficult to locate.

8.2.2 Document Secondary Data

- Documents are durable repositories of text, audio, and visual content that can be used across time and space.
- Document data can be used alone, with primary data, or with other secondary data.

- Documents portray the creator's perspective rather than objective reality.
- **Text media** includes notices, correspondence, minutes, reports, diaries, web pages, books, articles and newspapers.
- **Audio and audio-visual media** includes radio/TV recordings, speeches, and podcasts.
- **Visual data** includes static (photos, graphs) and moving (films, videos) media.
- Organizational databases of records are another source of document data, including employee, member and customer details.

8.2.3 Multiple-Source Secondary Data

- Multiple-source data is compiled from documents, survey data, continuous monitoring, or a combination.
- **Snapshot data sets** are compilations of company information in databases like Amadeus or share price listings.
- Secondary data can be combined to form area-based data sets.
- **Longitudinal data sets** combine comparable variables from multiple surveys or repeated snapshots to provide data over time.
- **Continually updated data sets** are often referred to as big data and are collected in real-time.
- **Big data** is characterized by the three Vs:
 - **Volume:** large data sets with numerous variables and observations
 - **Velocity:** speed at which data are added
 - **Variety:** multiplicity of unstructured and structured data
- Two more Vs have been added:
 - **Veracity:** biases and inconsistencies
 - **Validity:** whether data is correct
- Big data often requires data science applications for analysis.

8.3 Advantages of Secondary Data

- **Fewer resource requirements:** secondary data saves time and money.
- **Unobtrusive:** data already collected, no need for direct interaction or face-to-face contact.
- **Easier ethical review:** data often public or already anonymized.
- **Longitudinal studies feasible:** enables research over long periods of time.
- **Comparative and contextual data:** can compare or triangulate with primary data.
- **Potential unforeseen discoveries and new insights:** reanalyzing can uncover new findings.
- **Public scrutiny possible:** data is available for review, enhancing credibility.

8.4 Disadvantages of Secondary Data

- **Original purpose may not match your need:** data was collected for different purposes.
- **Access may be difficult or costly:** some data is expensive or requires permission.

- **Aggregations and definitions may be unsuitable:** compiled data may not suit your specific needs.
- **No real control over data quality:** may have errors or biases.
- **Original purpose can affect how data are presented:** documents may reflect the views of the creator rather than an objective view.

8.5 Searching for and Locating Secondary Data

- Locating secondary data involves three stages:
 - **Ascertaining the data required:** research questions and literature review guide the data needs
 - **Establishing their likely availability:** identify what data is likely to be available.
 - **Sourcing the precise data:** find and record the source and methodology.
- Indexes and catalogs of data archives can help find available data.
- Online communities, organizations and other sources can be more difficult to establish availability.
- Data from archives and databases are easier to source, while data from online communities, organizations, and other sources can be more difficult.

8.6 Evaluating and Selecting Secondary Data Sources

- Secondary data must be evaluated before use to ensure suitability for research.
- Evaluation involves assessing:
 - **Overall suitability:** measurement validity and coverage
 - **Precise suitability:** reliability/dependability and validity/credibility, measurement bias
 - **Costs and benefits**
- **Measurement validity** assesses whether the data measures what it was intended to measure.
- **Coverage** ensures data covers the population, time period, and variables necessary.
- **Reliability or dependability** relates to the method of data collection; look at source reputation and collection process.
- **Validity or credibility** involves assessing the method used, context, and those responsible for collecting data.
- **Measurement bias** can be caused by deliberate distortion, changes in collection, or invalid measurement techniques.
- **Cost-benefit analysis** considers the time, financial resources, and the usefulness of the data in meeting research objectives.

Chapter 14

14.1 Introduction

- Writing the project report and presenting it orally can be viewed with trepidation, but it is a crucial part of the research process.
- Writing is a powerful way to clarify thoughts and should be seen as a continuous process throughout research, not just the final stage.
- Writing helps in learning, as it requires a deep understanding of the subject to explain it to others.
- It can be difficult to explain a familiar subject to those with no knowledge of it, potentially leading to omissions or unclear explanations.
- Fear of criticism, negative experiences with writing, and impatience can make writing challenging.
- The chapter addresses concerns about writing and provides different approaches to reporting research.

14.2 Undertaking Writing

- Writing regularly throughout the research project is essential.
- This includes drafting the research proposal, writing summaries and memos, keeping a reflective diary, consulting literature, and drafting different sections of the report as the research progresses.
- Regular writing helps to avoid a last-minute rush and aids focus and analysis.
- Practical hints for writing:
 - Set aside time for writing every day, even if it's only for 15 to 30 minutes.
 - Write when the mind is fresh to maximize creativity.
 - Find a regular writing place free from distractions.
 - Create a structure for the writing, both overall and for each chapter.
 - Write a key sentence for each paragraph to provide structure.
 - Set realistic goals for writing, like completing a section or writing a number of words.
 - Finish a writing session on a high point, completing a section or subsection, to avoid losing ideas.
 - Start a new writing session by reviewing the previous session.
 - Keep backup copies of all drafts.
 - Get friends to read the work and provide constructive criticism.

14.3 Reporting Approaches and Report Structures: An Overview

- The structure of a project report reflects certain aspects of research.
- Different reporting approaches include:
 - **Linear-analytic**: structured logically to reflect the research process
 - **Comparative**: allows for analytical comparisons of different data sets.
 - **Chronological**: emphasizes the sequence of events in the data

- **Theory building:** highlights the emergence of research ideas and explanations
- **Suspense:** presents the explanation in the introduction and explores alternatives throughout the report.
- The structure should align with the research design, data analysis, purpose, and audience.
- The traditional academic structure is a 'logico-deductive' approach.
- Alternative structures may vary in content arrangement or focus on different aspects for a practitioner audience.
- Researchers may use different structures even with the same research strategy.
- The chosen structure must be permissible, clear to the audience, and show how the research question was answered.

14.4 The Traditional (Academic) Report Structure

- The traditional structure typically includes:
 1. **Abstract:** a short summary of the report.
 - It should include the research questions, methods, findings, and conclusions.
 - It should be short, self-contained, objective, precise, and easy to read.
 - It is best to draft the abstract at the start of the writing process and amend it later.
 2. **Introduction:** provides a clear idea of the central issue and its importance, research questions, aims and objectives, and a brief overview of the organization and a route map through the report.
 3. **Literature Review:** sets the study within its wider, theoretical context, placing it before the method chapter.
 4. **Method:** provides enough information to assess the reliability, dependability, and validity of the research, with a clear rationale for choices made.
 5. **Findings/Results:** reports the results of data analysis, usually presented in tables, graphs, and with illustrative quotations.
 - The purpose is to present the results, not to discuss them.
 - Structure findings clearly, perhaps by following research objectives or using themes.
 6. **Discussion:** interprets the findings, states their relation to the research questions and objectives and the implications for relevant theories, strengths and limitations of the study.
 7. **Conclusions:** summarizes the main ideas of the research, pointing to their wider implications, answering research questions and, if appropriate, supporting or refuting research hypotheses.
 8. **References:** lists all cited sources.
 9. **Appendices:** includes non-essential but useful material such as questionnaires, interview schedules, consent forms, and ethical approval.
- Tables, graphs, diagrams and images are used to represent data.
- Quotations from transcripts, diaries and documents are used to support findings.

- The discussion section interprets the results and relates them to the research questions and relevant theories.
- The conclusions should summarize the main ideas and provide a brief recap of what was done, demonstrating the importance and implications of the findings.
- References should be complete and follow the chosen referencing style.
- Appendices should be kept to a minimum and should contain important supplementary information.

14.5 Alternative (Academic) Report Structures

- Research strategy may affect report structure.
- **Action Research:**
 - The report structure must reflect its emergent and iterative nature.
 - Context and rationale for choosing Action Research are essential.
 - Literature may be introduced at different stages rather than in a single literature review chapter.
 - Report should present a chronological account of each research cycle with a separation between description and interpretation.
 - A final discussion should draw together interpretations and contextualize them with prior theory.
- **Case study:**
 - The structure depends on the purpose of the case study (descriptive, exploratory, explanatory, or evaluative).
 - Report must reflect the research process and data analysis.
 - Literature may be included at multiple points in the report.
 - Structure should allow for comparison of cases or analytical units.
- **Ethnography:**
 - The content and conventions used to write an ethnography are different to those in a typical deductive report.
 - The writing style and structure depend on the researcher's philosophical position, emphasis on description, interpretation, and reflexivity.
 - Ethnographies can be written in various styles, including realist, confessional, critical, formal, structural, post-structural and advocacy.
- **Grounded Theory:**
 - A chronological approach may be useful.
 - The report should show how the grounded theory is based in the data.
 - The report structure should emphasize the theory building purpose.
- **Narrative Research:**
 - The structure is influenced by the research question, nature of the narratives, and the type of narrative analysis.
 - May adopt a chronological, event-based, or thematic approach.
 - The structure should accommodate lengthy quotations and relate them to wider contextual factors and theory
 - The type of narrative analysis will shape the presentation of analysis and theoretical evaluations.

14.6 The Consultancy (Practitioner) Report

- Consultancy reports are for practitioners and differ from academic reports.
- They are shorter, with less contextual detail and more focus on practical recommendations.
- Key questions to consider when planning: audience, their expected information and detail, report presentation, existing knowledge, purpose of the report, key messages and recommendations.
- A simplified version of the traditional structure may be suitable.
 - Executive Summary, Introduction, Background and Method, Results/Findings, Recommendations, References, and Appendices.
- The executive summary should be short, clear, and able to stand alone, and should convey key information and recommendations with implications.
- Avoid jargon, long words, complicated language, and management speak.

14.7 Ensuring Clarity and Accessibility

- Choose a short and descriptive title.
- Tell a clear story throughout the report.
- Use 'reasoning backwards' to check if the storyline is clear.
- Divide the work to ensure that readers can find their way around the report.
- Use section headings, subheadings, and further divisions to organize text.
- 'Top and tail' each chapter by previewing at the start and summarizing at the end.
- Use tables and figures to enhance accessibility.

14.8 Developing an Appropriate Writing Style

- Writing style is just as important as structure and content.
- Aim for clarity and simplicity, avoiding an academic pose.
- Write simple sentences, with one idea per sentence.
- Avoid jargon and unnecessary complex phrases.
- Use quotations from the literature sparingly.
- Check spelling and grammar.
- Be aware of common grammatical errors (Table 14.3).
- Be consistent in tense, voice, and personal pronoun use.
- Avoid language that assumes the gender of a classification of people.
- Preserve confidentiality and use pseudonyms where needed.
- Revise your work multiple times to ensure quality.

14.9 Meeting the Assessment Criteria

- Familiarize yourself with the assessment criteria.
- Demonstrate knowledge and comprehension, application, and analysis.
- Show evidence of synthesis and evaluation.
- Ensure the project report meets all formatting and length requirements.

- Ensure you would be proud of your work if it was in the university library.

14.10 Writing a Reflective Essay or Section

- Reflection and reflexivity are integral to some research strategies.
- Reflective diary or journal entries provide source material.
- Reflect on what went well, what didn't, what you have learned, what you would do differently and what skills have you developed (Box 14.14).
- Write the reflective essay in the first person.

14.11 Presentations

- Oral presentations and poster presentations require different skills than writing.
- **Oral Presentations:**
 - Plan and prepare carefully, establishing the format, time, audience and use of visual aids.
 - Have clear aims and objectives for the presentation.
 - Keep it clear and simple, and focus on the key message.
 - Decide the content using the abstract as a guide.
 - Involve the audience rather than simply telling them information.
 - Use visual aids to look more prepared and professional.
 - Ensure your presentation has a clear structure (like a news program).
 - Be prepared and rehearse your presentation beforehand.
- **Poster Presentations:**
 - Posters should be well designed, clearly structured, and easy to understand, with text, images and figures.
 - Typically include title, summary, short introduction with key literature, aim/objectives, methodology, findings, discussion, conclusions or recommendations.
 - Keep words to a minimum, no more than 1000.
 - Make sure it is readable from a distance.
 - Use clear headings and points of information and spacing.
 - Ensure the format matches the requirements (portrait or landscape).
 - Be prepared to answer questions.
 - Consider preparing handouts related to your poster.