Grounded Theory In Qualitative Research: A Practical Guide

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> Grounded theory is a useful approach when you want to develop a new theory based on real-world data Instead of starting with a pre-existing theory, grounded theory lets the data guide the development of your theory.

What Is Grounded Theory?

Grounded theory is a qualitative method specifically designed to inductively generate theory from data. It was developed by Glaser and Strauss in 1967.

- **Data shapes the theory:** Instead of trying to prove an existing theory, you let the data guide your findings.
- **No guessing games:** You don't start with assumptions or try to confirm your own biases.
- **Data collection and analysis happen together:** You analyze information as you gather it, which helps you decide what data to collect next.

It is important to note that grounded theory is an inductive approach where a theory is developed from collected real-world data rather than trying to prove or disprove a hypothesis like in a deductive scientific approach

You gather information, look for patterns, and use those patterns to develop an explanation.

It is a way to understand why people do things and how those actions create patterns. Imagine you're trying to figure out why your friends love a certain video game.

Instead of asking an adult, you observe your friends while they're playing, listen to them talk about it, and maybe even play a little yourself. By studying their actions and words, you're using grounded theory to build an understanding of their behavior.

This qualitative method of research focuses on real-life experiences and observations, letting theories emerge naturally from the data collected, like piecing together a puzzle without knowing the final image.

When should you use grounded theory?

Grounded theory research is useful for beginning researchers, particularly graduate students, because it offers a clear and flexible framework for conducting a study on a new topic.

Grounded theory works best when existing theories are either insufficient or nonexistent for the topic at hand.

Since grounded theory is a continuously evolving process, researchers collect and analyze data until theoretical saturation is reached or no new insights can be gained.

What is the final product of a GT study?

The final product of a grounded theory (GT) study is an integrated and comprehensive grounded theory that explains a process or scheme associated with a phenomenon.

The quality of a GT study is judged on whether it produces this middle-range theory

Middle-range theories are sort of like explanations that focus on a specific part of society or a particular event. They don’t try to explain everything in the world. Instead, they zero in on things happening in certain groups, cultures, or situations.

Think of it like this: a grand theory is like trying to understand all of weather at once, but a middle-range theory is like focusing on how hurricanes form.

Here are a few examples of what middle-range theories might try to explain:

- How people deal with feeling anxious in social situations.
- How people act and interact at work.
- How teachers handle students who are misbehaving in class.

Core Components of Grounded Theory

This terminology reflects the iterative, inductive, and comparative nature of grounded theory, which distinguishes it from other research approaches.

- **Theoretical Sampling:** The researcher uses theoretical sampling to choose new participants or data sources based on the emerging findings of their study. The goal is to gather data that will help to further develop and refine the emerging categories and theoretical concepts.
- **Theoretical Sensitivity:** Researchers need to be aware of their preconceptions going into a study and understand how those preconceptions could influence the research. However, it is not possible to completely separate a researcher's history and experience from the construction of a theory.
- **Coding:** Coding is the process of analyzing qualitative data (usually text) by assigning labels (codes) to chunks of data that capture their essence or meaning. It allows you to condense, organize and interpret your data.
- **Core Category:** The core category encapsulates and explains the grounded theory as a whole. Researchers identify a core category to focus on during the later stages of their research.
- **Memos:** Researchers use memos to record their thoughts and ideas about the data, explore relationships between codes and categories, and document the development of the emerging grounded theory. Memos support the development of theory by tracking emerging themes and patterns.
- **Theoretical Saturation:** This term refers to the point in a grounded theory study when collecting additional data does not yield any new theoretical insights. The researcher continues the process of collecting and analyzing data until theoretical saturation is reached.
- **Constant Comparative Analysis:** This method involves the systematic comparison of data points, codes, and categories as they emerge from the research process. Researchers use constant comparison to identify patterns and connections in their data.

Versions

Barney Glaser and Anselm Strauss first introduced grounded theory in 1967 in their book, *The Discovery of Grounded Theory*.

Their aim was to create a research method that prioritized real-world data to understand social behavior.

However, their approaches diverged over time, leading to two distinct versions: Glaserian and Straussian grounded theory.

The different versions of grounded theory diverge in their approaches to coding, theory construction, and the use of literature.

All versions of grounded theory share the goal of generating a **middle-range theory** that explains a social process or phenomenon.

They also emphasize the importance of **theoretical sampling**, **constant comparative analysis**, and **theoretical saturation** in developing a robust theory

Glaserian Grounded Theory

Glaserian grounded theory emphasizes the **emergence of theory from data** and discourages the use of pre-existing literature.

Glaser believed that adopting a specific philosophical or disciplinary perspective reduces the broader potential of grounded theory.

For Glaser, prior understandings should be based on the general problem area and reading very wide to alert or sensitize one to a wide range of possibilities.

It prioritizes **parsimony**, **scope**, and **modifiability** in the resulting theory

Straussian Grounded Theory

Strauss and Corbin (1990) focused on developing the analytic techniques and providing guidance to novice researchers.

Straussian grounded theory utilizes a more structured approach to coding and analysis and acknowledges the role of the literature in shaping research.

It acknowledges the role of **deduction** and **validation** in addition to induction.

Strauss and Corbin also emphasize the use of **unstructured interview questions** to encourage participants to speak freely

Critics of this approach believe it produced a rigidity never intended for grounded theory.

Constructivist Grounded Theory

This version, primarily associated with Charmaz, recognizes that knowledge is situated, partial, provisional, and socially constructed. It emphasizes abstract and conceptual understandings rather than explanations.

Kathy Charmaz expanded on original versions of GT, emphasizing the researcher's role in interpreting findings

Constructivist grounded theory acknowledges the researcher's influence on the research process and the co-creation of knowledge with participants

Situational Analysis

Developed by Clarke, this version builds upon Straussian and Constructivist grounded theory and incorporates **postmodern**, **poststructuralist**, and **posthumanist** perspectives.

Situational analysis incorporates postmodern perspectives and considers the role of nonhuman actors

It introduces the method of **mapping** to analyze complex situations and emphasizes both **human and nonhuman elements**.

Benefits

- **Discover New Insights:** Grounded theory lets you uncover new theories based on what your data reveals, not just on pre-existing ideas.
- **Data-Driven Results:** Your conclusions are firmly rooted in the data you've gathered, ensuring they reflect reality. This close relationship between data and findings is a key factor in establishing trustworthiness.
- **Avoids Bias:** Because gathering data and analyzing it are closely intertwined, researchers are truly observing what emerges from data, and are less likely to let their preconceptions color the findings.
- **Streamlined data gathering and analysis:** Analyzing and collecting data go hand in hand. Data is collected, analyzed, and as you gain insight from analysis, you continue gathering more data.
- **Synthesize Findings**: By applying grounded theory to a qualitative metasynthesis, researchers can move beyond a simple aggregation of findings and generate a higher-level understanding of the phenomena being studied.

Limitations

- **Time-Consuming:** Analyzing qualitative data can be like searching for a needle in a haystack; it requires careful examination and can be quite time-consuming, especially without software assistance6.

- **Potential for Bias:** Despite safeguards, researchers may unintentionally influence their analysis due to personal experiences.
- **Data Quality:** The success of grounded theory hinges on complete and accurate data; poor quality can lead to faulty conclusions.

Practical Steps

Grounded theory can be conducted by individual researchers or research teams. If working in a team, it's important to communicate regularly and ensure everyone is using the same coding system.

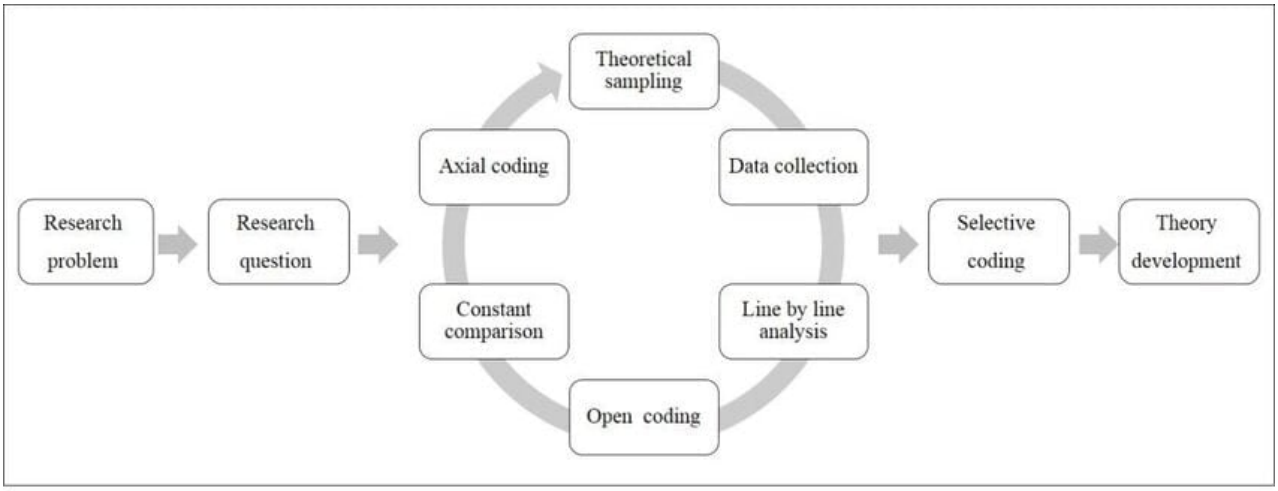
Grounded theory research is typically an iterative process. This means that researchers may move back and forth between these steps as they collect and analyze data.

Instead of doing everything in order, you repeat the steps over and over.

This cycle keeps going, which is why grounded theory is called a circular process.

Continue to gather and analyze data until no new insights or properties related to your categories emerge. This saturation point signals that the theory is comprehensive and well-substantiated by the data.

Theoretical sampling, collecting sufficient and rich data, and theoretical saturation help the grounded theorist to avoid a lack of "groundedness," incomplete findings, and "premature closure.



Source: Choi, Y. J., Choi, H. B., & O'Donnell, M. (2018). Disaster reintegration model: a qualitative analysis on developing Korean disaster mental health support model. *International Journal of Environmental Research and Public Health*, *15*(2), 362.

1. Planning and Philosophical Considerations

Begin by considering the phenomenon you want to study and assess the current knowledge surrounding it.

However, refrain from detailing the specific aspects you seek to uncover about the phenomenon to prevent pre-existing assumptions from skewing the research.

- **Discern a personal philosophical position.** Before beginning a research study, it is important to consider your philosophical stance and how you view the world, including the nature of reality and the relationship between the researcher and the participant. This will inform the methodological choices made throughout the study.
- **Investigate methodological possibilities.** Explore different research methods that align with both the philosophical stance and research goals of the study.
- **Plan the study.** Determine the research question, how to collect data, and from whom to collect data.
- **Conduct a literature review.** The literature review is an ongoing process throughout the study. It is important to avoid duplicating existing research and to consider previous studies, concepts, and interpretations that relate to the emerging codes and categories in the developing grounded theory.

2. Recruit participants using theoretical sampling

Initially, select participants who are readily available (convenience sampling) or those recommended by existing participants (snowball sampling).

As the analysis progresses, transition to **theoretical sampling**, involving the deliberate selection of participants and data sources to refine your emerging theory.

This method is used to refine and develop a grounded theory. The researcher uses theoretical sampling to choose new participants or data sources based on the emerging findings of their study.

This could mean recruiting participants who can shed light on gaps in your understanding uncovered during the initial data analysis.

Theoretical sampling guides further data collection by identifying participants or data sources that can provide insights into gaps in the emerging theory

The goal is to gather data that will help to further develop and refine the emerging categories and theoretical concepts.

Theoretical sampling starts early in a GT study and generally requires the researcher to make amendments to their ethics approvals to accommodate new participant groups.

3. Collect Data

The researcher might use interviews, focus groups, observations, or a combination of methods to collect qualitative data.

- **Observations**: Watching and recording phenomena as they occur. Can be participant (researcher actively involved) or non-participant (researcher tries not to influence behaviors), and covert (participants unaware) or overt (participants aware).
- **Interviews**: One-on-one conversations to understand participants' experiences. Can be structured (predetermined questions), informal (casual conversations), or semi-structured (flexible structure to explore emerging issues).
- **Focus groups**: Dynamic discussions with 4-10 participants sharing characteristics, moderated by the researcher using a topic guide.
- **Ethnography**: Studying a group's behaviors and social interactions in their environment through observations, field notes, and interviews. Researchers immerse themselves in the community or organization for an in-depth understanding.

4. Begin open coding as soon as data collection starts

Open coding is the first stage of coding in grounded theory, where you carefully examine and label segments of your data to identify initial concepts and ideas.

This process involves scrutinizing the data and creating codes grounded in the data itself.

The initial codes stay close to the data, aiming to capture and summarize critically and analytically what is happening in the data

To begin open coding, read through your data, such as interview transcripts, to gain a comprehensive understanding of what is being conveyed.

As you encounter segments of data that represent a distinct idea, concept, or action, you assign a code to that segment. These codes act as descriptive labels summarizing the meaning of the data segment.

For instance, if you were analyzing interview data about experiences with a new medication, a segment of data might describe a participant's difficulty sleeping after taking the medication. This segment could be labeled with the code "trouble sleeping"

Open coding is a crucial step in grounded theory because it allows you to break down the data into manageable units and begin to see patterns and themes emerge.

As you continue coding, you constantly compare different segments of data to refine your understanding of existing codes and identify new ones.

For instance, excerpts describing difficulties with sleep might be grouped under the code "trouble sleeping".

This iterative process of comparing data and refining codes helps ensure the codes accurately reflect the data.

Open coding is about staying close to the data, using in vivo terms or gerunds to maintain a sense of action and process

5. Reflect on thoughts and contradictions by writing grounded theory memos during analysis

During open coding, it's crucial to engage in memo writing. Memos serve as your "notes to self", allowing you to reflect on the coding process, note emerging patterns, and ask analytical questions about the data.

Document your thoughts, questions, and insights in memos throughout the research process.

These memos serve multiple purposes: tracing your thought process, promoting reflexivity (self-reflection), facilitating collaboration if working in a team, and supporting theory development.

Early memos tend to be shorter and less conceptual, often serving as "preparatory" notes. Later memos become more analytical and conceptual as the research progresses.

Memo Writing

- **Reflexivity and Recognizing Assumptions:** Researchers should acknowledge the influence of their own experiences and assumptions on the research process. Articulating these assumptions, perhaps through memos, can enhance the transparency and trustworthiness of the study.

- **Write memos throughout the research process.** Memo writing should occur throughout the entire research process, beginning with initial coding. Memos help make sense of the data and transition between coding phases.
- **Ask analytic questions in early memos.** Memos should include questions, reflections, and notes to explore in subsequent data collection and analysis.
- **Refine memos throughout the process.** Early memos will be shorter and less conceptual, but will become longer and more developed in later stages of the research process. Later memos should begin to develop provisional categories.

6. Group codes into categories using axial coding

Axial coding is the process of identifying connections between codes, grouping them together into categories to reveal relationships within the data.

Axial coding seeks to find the axes that connect various codes together.

For example, in research on school bullying, focused codes such as “Doubting oneself, getting low self-confidence, starting to agree with bullies” and “Getting lower self-confidence; blaming oneself” could be grouped together into a broader category representing the impact of bullying on self-perception.

Similarly, codes such as “Being left by friends” and “Avoiding school; feeling lonely and isolated” could be grouped into a category related to the social consequences of bullying.

These categories then become part of the emerging grounded theory, explaining the multifaceted aspects of the phenomenon.

Qualitative data analysis software often represents these categories as nested codes, visually demonstrating the hierarchy and interconnectedness of the concepts.

This hierarchical structure helps researchers organize their data, identify patterns, and develop a more nuanced understanding of the relationships between different aspects of the phenomenon being studied.

This process of axial coding is crucial for moving beyond descriptive accounts of the data towards a more theoretically rich and explanatory grounded theory.

7. Define the core category using selective coding

During **selective coding**, the final development stage of grounded theory analysis, a researcher focuses on developing a detailed and integrated theory by selecting a **core category** and connecting it to other categories developed during earlier coding stages.

The core category is the central concept that links together the various categories and subcategories identified in the data and forms the foundation of the emergent grounded theory.

This core category will encapsulate the main theme of your grounded theory, that encompasses and elucidates the overarching process or phenomenon under investigation.

This phase involves a concentrated effort to refine and integrate categories, ensuring they align with the core category and contribute to the overall explanatory power of the theory.

The theory should comprehensively describe the process or scheme related to the phenomenon being studied.

Example

For example, in a study on school bullying, if the core category is “victimization journey,” the researcher would selectively code data related to different stages of this journey, the factors contributing to each stage, and the consequences of experiencing these stages.

This might involve analyzing how victims initially attribute blame, their coping mechanisms, and the long-term impact of bullying on their self-perception.

Continue collecting data and analyzing until you reach theoretical saturation

Selective coding focuses on developing and saturating this core category, leading to a cohesive and integrated theory.

Through selective coding, researchers aim to achieve theoretical saturation, meaning no new properties or insights emerge from further data analysis.

This signifies that the core category and its related categories are well-defined, and the connections between them are thoroughly explored.

This rigorous process strengthens the trustworthiness of the findings by ensuring the theory is comprehensive and grounded in a rich dataset.

It’s important to note that while a grounded theory seeks to provide a comprehensive explanation, it remains grounded in the data.

The theory’s scope is limited to the specific phenomenon and context studied, and the researcher acknowledges that new data or perspectives might lead to modifications or refinements of the theory

- **Constant Comparative Analysis:** This method involves the systematic comparison of data points, codes, and categories as they emerge from the research process. Researchers use constant comparison to identify patterns and connections in their data. There are different methods for comparing excerpts from interviews, for example, a researcher can compare excerpts from the same person, or excerpts from different people. This process is ongoing and iterative, and it continues until the researcher has developed a comprehensive and well-supported grounded theory.
- **Continue until reaching theoretical saturation**: Continue to gather and analyze data until no new insights or properties related to your categories. This saturation point signals that the theory is comprehensive and well-substantiated by the data.

8. Theoretical coding and model development

Theoretical coding is a process in grounded theory where researchers use advanced abstractions, often from existing theories, to explain the relationships found in their data.

Theoretical coding often occurs later in the research process and involves using existing theories to explain the connections between codes and categories.

This process helps to strengthen the explanatory power of the grounded theory. Theoretical coding should not be confused with simply describing the data; instead, it aims to explain the phenomenon being studied, distinguishing grounded theory from purely descriptive research.

Using the developed codes, categories, and core category, create a model illustrating the process or phenomenon.

Here is some advice for novice researchers on how to apply theoretical coding:

- **Begin with data analysis:** Don’t start with a pre-determined theory. Instead, allow the theory to emerge from your data through careful analysis and coding.

- **Use existing theories as a guide:** While the theory should primarily emerge from your data, you can use existing theories from any discipline to help explain the connections you are seeing between your categories. This demonstrates how your research builds on established knowledge.
- **Use Glaser's coding families:** Consider applying Glaser's (1978) coding families in the later stages of analysis as a simple way to begin theoretical coding. Remember that your analysis should guide which theoretical codes are most appropriate.
- **Keep it simple:** Theoretical coding doesn't need to be overly complex. Focus on finding an existing theory that effectively explains the relationships you have identified in your data.
- **Be transparent:** Clearly articulate the existing theory you are using and how it explains the connections between your categories.
- **Theoretical coding is an iterative process**: Remain open to revising your chosen theoretical codes as your analysis deepens and your grounded theory evolves.

9. Write your grounded theory

Present your findings in a clear and accessible manner, ensuring the theory is rooted in the data and explains the relationships between the identified concepts and categories.

The end product of this process is a well-defined, integrated grounded theory that explains a process or scheme related to the phenomenon studied.

- **Develop a dissemination plan**: Determine how to share the research findings with others.
- **Evaluate and implement**: Reflect on the research process and quality of findings, then share findings with relevant audiences in service of making a difference in the world

Reading List

Grounded Theory Review: This is an international journal that publishes articles on grounded theory.

- Birks, M., & Mills, J. (2015). *Grounded theory: A practical guide*. Sage.
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