Invited State of the Methods Paper

Grounded Theory: The FAQs

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Abstract
Since being developed as a research methodology in the 1960s, grounded theory (GT) has grown in popularity. In spite of its prevalence, considerable confusion surrounds GT, particularly in respect of the essential methods that characterize this approach to research. Misinformation is evident in the literature around issues such as the various approaches to GT, how long the process takes, the role of literature and preconceptions, generating and using data and strategies to produce theory. This article examines the most frequently asked questions about GT in an effort to demystify its purpose and use. Understanding the fundamental concepts of GT is critical to the correct use and application of GT methods and the ultimate production of theory that is grounded in data. More significantly, this understanding can prevent researchers encountering common pitfalls that can impede the process and impact the products of research.

Keywords
grounded theory, qualitative methods, theoretical coding, theoretical sampling, theory

Introduction
Since its development in the 1960s, grounded theory (GT) has grown into one of the most widely used research methodologies, particularly for studies examining qualitative phenomena. While traditionally used in the social sciences, a GT approach has also been used to investigate phenomena in areas as diverse as business and management (Battisti & Deakins, 2018; Intezari & Pauleen, 2018), music performance (Geeves, McIlwain, & Sutton, 2016), and takeaway food consumption (Davies, Blow, Gregg, & Patel, 2019). In spite of its popularity and extensive presence in the literature, even experienced researchers are often confused by the different versions of GT and may find the terminology related to GT processes inaccessible. For example, concepts such as theoretical sampling and theoretical coding, not used in other forms of research, can be perplexing. The use of quantitative data and literature are also sources of confusion for those new to GT research. This article aims to demystify the methodology by presenting answers to questions most frequently asked about GT.

Frequently Asked Questions About GT

Do I have to be an experienced researcher to do GT?
GT offers considerable flexibility for researchers from various fields, investigating unique phenomena using broad data sources. It is often a preferred methodology for beginning researchers, in particular, graduate students because it is seen to provide a clear and flexible framework for conducting a study. While GT processes can be complex, the associated skills can be acquired. It must be noted, however, that the rendering of a quality GT, as a result of these processes, is dependent on the precise application of essential GT methods (Birks & Mills, 2015).

It is possible for this precision to be learnt through engagement with the GT process. It is, however, best achieved with supervision from a mentor experienced in the methodology. This supervision can be supplemented by reference to the many GT texts and online resources. Published GT studies can also provide examples of the methodology in practice, although it is important to conduct a structured critique of any such work to ensure that it provides a quality exemplar (both Birks & Mills, 2015, and Charmaz, 2014, provide some useful examples of evaluation frameworks).

While critique of GT requires attention to the overall quality of the work, the defining characteristic of this approach is the

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production of theory that is grounded in the data. As will be
discussed later, many studies claiming to be GT fail to ulti-
mately conceptualize theory (Glaser, 2019). This outcome is a
potential pitfall for inexperienced researchers who may halt
at the description stage or fail to recognize what distinguishes GT
from other forms of descriptive research. Fortunately there are
numerous examples of quality GT that can provide direction
(see, e.g., Chun Tie, Birks, & Francis, 2019; Edwards, Birks,
Chapman, & Yates, 2018; Hoare & Decker, 2015; Redman-
MacLaren, 2015).

How long does it take to do a GT?
Producing a GT has traditionally been seen as an extended
process that is often executed throughout the duration of a
doctoral program. Classic GT was developed in the 1960s
when Glaser and Strauss (1965) entered hospitals to explore
how patients, families, and hospital personnel dealt with the
process of dying. Instead of testing a theory, the usual scientific
method of the time, they used their perceptions, field notes, and
interviews to discover the everyday realities of terminal care
(Noerager Stern & Porr, 2011). Their study is historically very
important because it was not only the first published GT but
also a study that contributed to developing a more compassio-
nate and rational approach to end-of-life care.

For six years, Glaser and Strauss were allowed to observe
the dying aspects of dying in six different hospitals in the United
Sates (Andrews & Nathaniel, 2015). This study was later used to
explicate their meticulous method, in the seminal text The
Discovery of Grounded Theory (Glaser & Strauss, 1967). As
the decades have passed, GT has evolved along a
“methodological spiral” (Mills, Bonner, & Francis, 2006,
p. 25); however, in all its forms, there remains a set of defining
criteria. Birks and Mills (2015) consider the following methods
essential to GT: initial coding and categorization of data, con-
current data collection and analysis, writing memos, theoretical
sampling, constant comparative analysis using inductive and
abductive logic, theoretical sensitivity, intermediate coding,
selecting a core category, theoretical saturation, and theoretical
integration.

While many researchers still consider GT development as a
prolonged process, more recently a number of published studies
demonstrate that GT research can be conducted in a much
shorter period of time than that taken by the originators of the
method. These short action-oriented grounded theories, at a
microlevel, are practical, easy to execute, and trustworthy
when evaluating them against Glaser’s (1978) “grab and fit”
proclamation. Glaser proposed that a good GT should gain the
reader’s attention and allow them to easily understand the pos-
tulated theory. Short grounded theories of note include exam-
ining backpacker’s decision-making regarding seeking help in
dengue fever (Vajta, Holberg, Mills, & McBride, 2015), teen-
ager’s evaluation of a sexual health promotion leaflet (Hoare &
Decker, 2015), and children’s perceptions of the health and
rights of their Kenyan peers (Hoare, Ward, & Walker, 2018).
Each of these three studies was conducted over a few months
rather than over a period of many years. Yet each resulted in a
quality theory, grounded in the data, that explained the experi-
ences of a phenomenon from the perspective of those impacted
by it. It is not the length of time that creates a good GT,
therefore, but transparent, precise adherence to the methods
resulting in a theory that can be conveyed with clarity.

How do you decide which version of GT to do?
Successfully engaging with GT requires assuming a reflexive
position that enables you to identify how you view the world
(Birks & Mills, 2015). Ontology is the philosophical study of
the nature of being or reality, and epistemology is the philoso-
phical study of how knowledge is created (Birks, 2014). Ontol-
ogy and epistemology are interlinked as your beliefs about
reality will guide your philosophical stance, which in turn will
guide the version of GT you choose to follow. A key distinction
between quantitative and qualitative approaches to research is a
recognition in the latter of the significance of philosophical
position to research processes and outcomes. When considering
versions of GT, it is clear to see how this philosophical
positioning influenced each grounded theorists’ approach to the
research process.

Glaser’s contribution to GT was influenced by mid-20th-
century positivism, which sought explanation and predic-
tion—answering the “why” question and not the “what” and
“how” questions. Objectivist grounded theorists assume a sin-
gle reality, which a neutral observer can discover. Data collec-
tion is straightforward, data are self-evident and provide
explanations and predictions. Relying only on field notes as
data, Glaser (1998) does not believe that interviews should
be recorded, as writing a one-sided account of the interaction
effectively separates the researcher from the participant (Birks
& Mills, 2015).

Strauss studied and taught at the eminent Chicago School
and was a student of George Mead who first described the
principles of symbolic interactionism, a theory developed from
the philosophy of pragmatism. Pragmatism assumes that soci-
ety, reality, and self are constructed through what Mead
described as a series of transactional gestures, where a gesture
from one person requires a response from another. These ges-
tures result in the constructions of social reality and are the
means by which we come to understand ourselves and the
social group (Simpson, 2009). Blumer (1969) clarified Mead’s
original ideas and dubbed the ensuing philosophy “symbolic
interactionism.” Bryant and Charmaz (2007) suggest that
despite the objectivist leanings of traditional GT, Strauss may
have stood on the outside of the various critiques of scientific
method in the 1960s and that he adopted the study of action and
“understood the methodological implications of symbolic
interactionism” (p. 49) in relation to GT methods. Here, skill-
fully employing different techniques in interviewing partici-
pants may elicit dense data. Strauss, in his later collaborations
with Corbin, advocated the use of unstructured interview questions to allow participants to speak freely and
uninterrupted thus implying that the interview would be
recorded (Corbin & Strauss, 2008).
Charmaz was a student of both Glaser and Strauss. Her important contribution to the evolution of GT methodology is the notion that rather than being a distant expert, which is how Glaser and Strauss initially positioned the researcher, they are instead implicit in the research process, co-constructing experience and meaning with research participants. Charmaz (2014) first described the term “constructivist grounded theory”. Social constructionist grounded theorists attend to the what and how of the phenomena under study and contend that data and its analysis has to be contextualized to the situation of the research participants (Charmaz, 2008).

Birks and Mills (2015) suggest that the unprecedented access to connectivity through the Internet has accelerated the evolutionary spiral of different methodological approaches. As has been discussed, the most important consideration when choosing to conduct a study is adherence to essential GT methods. This adherence is possible regardless of the philosophical position of the research given the inherent flexibility of GT methods.

**Should GT be done independently or can I work in a team?**

GT is often undertaken by individual researchers who carry out data collection/generation, analysis, and theory development autonomously. In many cases, however, these studies are conducted under the supervision of an experienced researcher or supervisory panel. Even experienced grounded theorists, when working independently, will often rely on colleagues to review and confirm analyses. Those reviewing research reports arising from GT studies will usually expect this practice as a routine quality measure.

While GT is often thought of as a solo endeavor, it is a design that very much lends itself to team-based research. Teams by their very nature result in a mix of experience and expertise and, therefore, strengths and limitations. Understanding each team member’s background and what they have to offer is the first step toward success. For example, one of the authors has recently written a grant application with a distinguished professor of chronobiology who has expertise in quantitative research, along with an early career researcher who is a sleep scientist. The substantive area of enquiry to be investigated is the process of registered nurse shift allocation. This topic arose from a cross-sectional survey that had recently been completed (Sleep/Wake Research Centre, 2019). Together the expertise of this team in the different areas of sleep, nursing, and GT allowed the brainstorming of possibilities for the research protocol that each member alone would not have considered. In respect of initial purposive sampling, the sleep experts in the team suggested starting with a sample of five registered nurses. The grounded theorist, however, argued that this approach could limit variation in the first round of data and potentially constrain the theoretical sampling to follow. The plan for initial recruitment will therefore include clinicians, administrative officers, human resource experts, and managers.

The greatest value in a GT team is in the sharing of viewpoints on data analysis and theory development. Rather than using team members to “check” the quality or “accuracy” of initial, intermediate, and advanced coding—the interaction between team members can generate much richer conceptualizations and possible explanations of action and interaction observed in the data. From a practical perspective, each member of the research team will likely undertake initial coding by themselves. A suggested strategy to manage the proliferation of different codes that will result from this process is for the team to meet early and often to review and discuss the lists of codes being generated. Identifying similarities and differences will assist the development of a shared list of codes that will be refined during the process of concurrent data generation/collection and analysis. Importantly, during the intermediate coding phase when you are collapsing codes into tentative categories, write memos that define the properties of the category and any potential dimensions it might possess. These memos are excellent vehicles to communicate an individual researcher’s interpretation of meaning to the rest of the team, while building “intellectual capital in the bank” (Clarke, 2005, p. 85) ready for your shared story line.

Contemporary GT has evolved to become a largely constructionist endeavor, and as will be discussed in the following section, researchers need to acknowledge the influence of their history and experience on the theory that is developed. Making this a shared experience through team research results in a multiplicity of ideas or views, which can be distilled into a consensual position. While this might be more time-consuming than undertaking data analysis and theory development as a solo researcher, the reward can be a sophisticated, multifaceted theory reflective of a multilayered approach to explaining the phenomenon being studied.

**How can I stop preconceptions from influencing my research?**

The issue of preconceptions has been a feature of the GT literature in the decades since its development as a research methodology (Charmaz, 2014). Glaser and Strauss (1967) originally acknowledged that researchers do not enter the field as tabula rasa or blank slate, meaning that they bring with them a wealth of personal and professional knowledge and experience. Glaser has consistently cautioned (most vehemently in his 1992 rebuttal of Strauss & Corbin’s, 1990 *Basics of Qualitative Research*) about the dangers of “forcing” the data by permitting preconceptions born from this knowledge and experience onto the analysis. This position reflects the “positivist ideal” (Thornberg & Dunne, 2019, p. 208) of objectivity that aims to enhance the perceived validity of studies using qualitative data, given the traditionally subordinate position of research undertaken outside the positivist paradigm. Since that early work, there has been greater acceptance of the value of interpretive studies and an appreciation of the significance of the researcher’s prior knowledge and experience in the process of analysis. As Dey (2003) so aptly put it “there is a difference between an open mind and an empty head” (p. 65).

While the work of Strauss and Corbin (1990) displayed a constructivist thread (Mills et al., 2006), it was Charmaz (2000) who moved GT away from Glaser and Strauss’ (1967) objectivist intent. Charmaz recognized that attempting to quarantine
existing knowledge and beliefs was not only difficult but counterproductive to fulfilling the potential of GT. Theoretical sensitivity or “the ability to recognize and extract from the data elements that have relevance for your emerging theory” (Birks & Mills, 2015, p. 58) relies on the researcher’s prior knowledge and experience. Having said that, it is important to identify your assumptions when entering into a research study using GT, to ensure that it is theoretical sensitivity rather than bias that informs analysis. For this reason, we encourage researchers to articulate their assumptions in a memo at the outset of their research. Recognizing assumptions is key to acknowledging the lens through which we view our world and our work. As has been discussed, it is not possible, nor indeed desirable, to separate our history and ourselves from the construction of a GT. Understanding and articulating our assumptions makes clear how our philosophical position only serves to enhance our work.

**How do I use literature in GT?**

Since the publication of *The Discovery of Grounded Theory* (Glaser & Strauss, 1967), there have been concerns about how and when students and researchers should engage with the literature. Glaser and Strauss (1967) originally asserted that engaging with the literature prior to fieldwork would be a constraint that would contaminate the “emergence of categories” from the data (p. 45). A number of years later, Strauss and Corbin (1990) recognized that a researcher brings history and knowledge to the area of inquiry, stating that prior knowledge would not necessarily hinder the emergence of data (Ramalho, Adams, Huggard, & Hoare, 2015). Furthermore, Charmaz (2008), from her constructivist position, assumes that “the researcher and researched co-construct the data—data are a product of the research process, not simply observed objects of it” (p. 402). Charmaz’s premise is that a theory does not “emerge” from the data through passivity, but rather the researcher proactively comes to the data with their background and knowledge and constructs the resultant theory.

We advocate examining literature that will establish a context for the study. This context will identify any work that has been done around the study area and provide background for a published report. Pragmatically, reading the literature around the substantive area of inquiry is important both to meet institutional requirements and raise the researcher’s theoretical sensitivity (Glaser, 1978; Hoare, Mills, & Francis, 2012). For example, Gemma Aburn, a PhD student supervised by one of the authors, investigated “How staff remain working in children’s blood and oncology services.” The preliminary literature reviewed prior to data collection centered on the topic of resilience as a sensitizing concept (Aburn, Gott, & Hoare, 2016). Higher degree research advisory panels often require a review of the literature in the early stages of a graduate study.

**Can I use quantitative data in GT?**

The use of quantitative data is becoming more common in GT studies. Glaser (2008) wrote at length about the use of quantitative data in a GT study, based on his original maxim that “all is data” (Glaser, 1998). This quote encourages the researcher to think about what is possible in terms of data collection or generation and opens their mind to different approaches. For example, Chun Tie (2019) and Chun Tie et al. (2019) developed a national survey of registered nurses to begin her GT study. The survey used a mix of demographic questions and open text data boxes to identify barriers and enablers to the integration of internationally prepared registered nurses in Australian health-care settings. As well as providing a source of data, the researchers used the quantitative survey as a method of recruiting a bank of potential participants with whom to generate data via interviews. Data points included location, age, gender, qualifications, role, speciality area of practice, length of time as a registered nurse, employment status, visa status, and work history. Analysis of the demographic data informed the theoretical sampling of participants for individual interviews and subsequent focus groups, aided category development, and ensured variation in the final theory.

Quantitative data can also be accessed in a GT study through the use of retrospective data sets originally collected for a different purpose. Redman-MacLaren (2015), for example, used a retrospective data set as a data source for her GT study. While Redman-MacLaren mainly used original qualitative interview transcripts generated with women, she also used quantitative survey findings from an earlier study to confirm and develop some of her initial analytical concepts. This study demonstrates a diversion from the usual approach of purposive sampling to begin a GT study.

**What is theoretical sampling?**

We define theoretical sampling as “...the process of identifying and pursuing clues that arise during analysis in a grounded theory study” (Birks & Mills, 2015, p. 181). One of the most common errors made by novice grounded theorists is the collection of all data before beginning analysis. In GT, this is a fatal error, as it is impossible to develop a theory that is grounded in the data without concurrently generating and analyzing data obtained using theoretical sampling. The researcher needs to “move lightly” across the analysis in an iterative process that can be likened to “dancing with the data” (Hoare et al., 2012).

Theoretical sampling needs to begin early in a GT study. Normally, the researcher will decide on a small purposive sample of participants to begin the process of concurrent data collection and analysis. Whether you chose to start with interviewing participants or an alternative method of data collection such as a survey or a period of ethnographic observation, the same principles apply to the purposive sample. Aim to ensure maximum variation in the sample and keep the quantity of data for analysis to a manageable size. Once you have coded the data from your purposive sample and written memos about your first impressions, it is time to make a decision about where and how to collect or generate the next tranche of data. In other words, where to sample next is based on the developing theory.

This move from purposive sampling to theoretical sampling for participants can provide the novice grounded theorist with some challenges in relation to ethics approvals, as it is difficult...
to forecast at the beginning of a study where your data analysis might lead you. It is not uncommon to amend an original ethics application several times during a GT study, as potential groups of participants are identified through concurrent data generation, collection, and analysis.

As well as theoretically sampling in respect of generating and collecting data, you will also theoretically sample within your existing data set as your analysis progresses to intermediate coding and category development. Again, using an iterative process, you may need to go back to your earlier data and reconsider it in light of your developing theory. As your theoretical sensitivity to concepts increases, you might ascribe new meanings that were not apparent during the initial analysis.

**What is theoretical coding?**

GT focuses on social processes. A process can take many forms but it generally consists of a series of events that are related to one another (Birks & Mills, 2015). Through explicating the elements of process, GT has the potential to explain phenomena. Theoretical coding is the mechanism through which this is achieved. Theoretical coding is “the use of advanced abstractions to provide a framework for enhancing the explanatory power of a grounded theory” (Birks & Mills, 2015, p. 181). These advanced abstractions take the form of other theories which are extant to your own but which support your own GT, thereby adding explanatory power.

Glaser (2005) asserts that theoretical coding is not always necessary; however, we believe that the full potential of GT cannot be achieved without theoretical coding. The explanatory power that accompanies well-developed GT is what sets it apart from other forms of research, particularly in interpretivist and constructivist paradigms. Theoretical codes can assist in explaining how the categories developed during analysis relate to each other (Glaser, 2005) and therefore bring process to the surface.

Theoretical coding occurs late in the process of analysis as an element of advanced coding and is often an area that novice grounded theorists struggle with most. In its simplest form, theoretical coding can consist of the application of Glaser’s (1978) coding families during the latter stages of analysis. Although, as Glaser and others (Charmaz, 2014) are quick to point out, the inclusion and use of theoretical codes must be directed by the analysis. Glaser (2005) does concede that theoretical schema from any discipline can function as a theoretical code, a position that we support. All research must demonstrate how it contributes to existing knowledge in a given area, and the use of existing theories to add explanatory power to a GT can achieve this outcome.

Confusion around theoretical coding results from a lack of clarity and consistency about this concept in the literature (Birks & Mills, 2015). However, the process of theoretical coding need not be complex. It can be as simple as the researcher identifying an extant theory and using it to explain the process inherent in a GT. One or more existing theories can be infused with, or superimposed on, the developing analysis to clarify the contribution of GT to existing knowledge while, and no less importantly, validating that knowledge. Edwards (2016) provides an example of this in her GT examining women presenting to nonmetropolitan emergency departments with early miscarriage. Through the use of an existing framework (Swanson’s theory of caring), Edwards added explanatory power to her own GT, entitled “Threads of care” (Figure 1).

**Do I have to produce a theory as a result of the research?**

There are numerous examples of research purporting to be GT
that fail to actually result in a theoretical product. Glaser (2019) refers to such research as “grounded description” (p. 441). Glaser suggests that qualitative researchers often struggle to move from description to theoretical explanation. Part of the problem may be a lack of understanding of what constitutes theory. Theory can be defined as “an explanatory scheme comprising a set of concepts related to each other” (Birks & Mills, 2015, p. 108). As we have mentioned, explanatory power is a key characteristic of GT. Research outcomes that describe phenomena will struggle to explicate process; relationships between categories will likely be static in the absence of a theoretical frame. So, in short, for research to be described as GT, a theory, grounded in the data, must be produced. Certainly, it is possible to use GT methods to varying degrees in other frameworks, and this commonly occurs. Harrison (2018), for example, effectively used GT methods within multiple case study methodology. The researcher in such cases must take care, however, to accurately report the methodological approach used. Correct application of all essential GT methods (Birks & Mills, 2015) will result in a theory; selective, modified application will likely not.

**Conclusion**

GT is one of the most popular methodologies used in contemporary research. The complexity of the associated methods and processes can, however, result in confusion about what constitutes GT. This article has examined some of the most common questions asked by researchers new to the methodology in an attempt to correct the misinformation often associated with GT and its use. As has been maintained throughout the preceding discussion, an understanding of the essential GT methods and precision in their use can support even the most inexperienced researcher through the process. We hope that this article has provided an enhanced understanding of the possibilities that GT offers.

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