What Is Grounded Theory?

“Grounded theory” (GT) is a term used by many researchers to describe a general method of developing theoretical constructs inductively from data sources gathered as part of a qualitative research study. This method is in contrast to initiating a research study with a particular theory that one wants to prove or disprove, and then collecting data to support the preselected theory. It is also different from a qualitative study that is essentially descriptive analysis. Briefly, within the general view of “a GT approach,” researchers conduct inquiry to generate theory inductively from data collected, typically using a “construct oriented” approach (e.g., creating categories that describe patterns in the data). They accomplish this by using systematic and thorough procedures. As researchers collect data, they simultaneously analyze these data using induction, deduction, abductive reasoning, and verification to develop theory. This theory provides a full explanation of a process or scheme associated with particular phenomena. During the analytical process, researchers become more familiar with the data and develop hypotheses, insights, and questions that are used to drive further data collection and analysis, and refinement of the theory. A visual model is produced from the analysis that displays a coding diagram of the theory, and the tone of the research indicates that a scientific process has been undertaken, while also being sensitive to the data and ideas generated from it (Creswell, 1998, p. 43).

While GT is appropriate for many qualitative studies, scholars in the field would argue that there are important differences between GT as an approach or general method and GT as methodology (GTM). The latter is not only a perspective or approach for developing theoretical ideas, but also includes attention to the philosophical and theoretical perspectives held by the researcher that undergird the study (Bryant & Charmaz, 2007; Birks & Mills, 2011). GTM also rests on a set of procedures for conducting research, including how data are analyzed and how theory is developed and reported. However, the idea that there is one approach to doing GT research is open to debate, and some researchers believe that theory generation—while important—is not the only benefit that results from GT studies (see Corbin’s introduction to Corbin & Strauss, 2008). Researchers can also use this approach to develop rich analyses of complex phenomena to address a wide array of research problems. As Corbin noted (Corbin & Strauss, 2008), a set of concepts provides a useful common language that researchers can work from as they build a body of knowledge and seek to impact practices. For the purposes of this entry, GTM as a detailed methodology and way of generating theory will be described.

What Are the Origins of Grounded Theory Methodology?

GTM is a well-developed set of procedures or analytic techniques designed with a particular end in view: creating a formal, substantive theory that explains a particular sort of social phenomena. GTM is based on the tenets of field research, where investigators “seek to move beyond particular meanings to identify general patterns and regularities in social life” (Charmaz, 1983, p. 93). Generating theory, then, requires that we take what we learn from observations and interactions with participants and indicate what these data tell us
2 GROUNDED THEORY AND QUALITATIVE RESEARCH

about the group upon which they are based, and about the social life of similar groups. Working between generating theory and staying true to the specific phenomena and participants under study provides a creative tension that researchers work within.

A rich history and database are associated with GTM. The database is used by many researchers and has resulted in a large number of publications in journals across many discipline areas. GTM was developed collaboratively by Drs. Barney Glaser and Anselm Strauss (now deceased). Strauss studied at the University of Chicago and was greatly influenced by interactionist and pragmatist thinking. Thus, GTM is deeply rooted in the field of sociology, and these ideas became its foundational premises. Symbolic interactionist ideas relate to studying the empirical social world, the world of everyday experiences and group life, looking to understand what people experience and do (Blumer, 1969). A study of the empirical social world begins with the act of inquiry, by asking questions about the world under study; researchers then use the information gathered from these questions to formulate problems that will be examined and will guide inquiry. The analyst's work is to view the problem under study through a flexible lens, free to shift as new knowledge is gained, in order to correctly situate the phenomena under study. Because of premises such as its focus on understanding the nature of experience, the importance placed on generating theory grounded in reality, and the belief that researchers must get into the field in order to understand phenomena, GT is termed fourth generation symbolic interactionism (Denzin, 1992).

Strauss worked with Glaser on a seminal study designed to study the experience of dying, and it was through this work that the methods outlined in the seminal text The Discovery of Grounded Theory: Strategies for Qualitative Research (Glaser & Strauss, 1967) were generated. These initial ideas evolved in scope on the basis of new ideas and research studies (Glaser & Strauss, 1978), primarily developed by students of the two scholars. Glaser left academia to pursue publishing and consulting work worldwide. The two scholars interacted again when Strauss and his student Juliet Corbin published the Basics of Qualitative Research: Grounded Theory Procedures and Techniques (1990). Glaser’s writings indicate a different perspective on GT than his colleague’s, focusing on GT as a method and on the substance of the resulting theory that emerged. Glaser did not focus on the use of any particular philosophical or theoretical underpinnings to the research because he felt this diminished the potential of GT by constraining the researcher. Instead, he focused on the process of induction, and the researcher’s skills and creativity in developing emerging categories from the data, seeking objectivity through the examination of multiple cases of a phenomenon under study. In contrast, Strauss was more interested in validation criteria and developing systematic approaches to doing research, by focusing on GT as a set of strategies and techniques that researchers could draw from when engaged in inquiry.

Historically, researchers have discussed what are called “moments” in qualitative research and the place that various GT approaches hold within this system (Denzin & Lincoln, 2005). Most agree that GT started in the “second moment” when the 1967 book was published. Later works, such as Strauss and Corbin’s work, were critiqued as lacking attention to ontological and epistemological issues such as how researchers view the world, what counts as knowing and understanding phenomena under study, and the role of the researcher—all needed to design a high-quality study (Birks & Mills, 2011). Subsequently, GT researchers developed theoretical frameworks that GT methods and methodology are embedded within. Corbin and Strauss (2008) enlarged their discussions of GT by attending to philosophical issues such as pragmatism and interactionist theories from the Chicago Sociology traditions, themes that Strauss actually outlined years earlier (Strauss, 1987). The focus on pragmatism influenced the development of axial coding, with this perspective serving as a focal point for the grounded theories that these researchers developed (Kelle, 2005). Researchers note that GT has moved to a “fifth moment” in which attention is paid
to the role of the researchers with participants, the importance of writing and grounding the final write-up in the data, and the outcomes of this research particularly in terms of evoking change in society. Charmaz (2005; 2006) argues that GT methodologists need to move beyond the positivist origins of GT and incorporate many of the methods and questions posed by constructivists over the past 20 years as well as by social justice theory advocates. She believes that this will allow researchers to become more nuanced and reflexive in their practices, and impact social change. Several educational researchers continue to draw upon a pragmatist’s perspective to undergird GTM, in which researchers study practical problems, identified by participants or in the field, and the goal is to press change to improve situations and individuals’ lives (see Dillon, O’Brien, & Heilman, 2000).

How Is Grounded Theory Methodology Carried Out?

Glaser and Strauss’s seminal text, The Discovery of Grounded Theory, documented in detail the procedures for engaging in GT research, and these ideas were embellished by various researchers in later years. First, data are collected in a variety of forms such as interviews, observations, field notes, documents, and conversations. These data are analyzed with the goal of developing concepts or conceptual categories that describe basic social processes, and are supported by properties that describe the qualities of the categories. To generate the categories and properties, researchers engage in open or substantive coding. They read their data and begin to code all different types of actions, events, and processes—anything related to the research questions guiding the study—and write analysis notes in the margins of the documents they are working on. This process is time-consuming because the researchers are carefully coding many concepts as they work through considerable numbers of data. Second, the initial codes the researcher generates from data are compared to new codes that are identified in new data that are collected. This often results in the merging, modification, and clarification of codes. This back-and-forth, cyclical process of comparing new data with previous data that have been collected and coded is called constant comparative analysis. The process also sets the stage for core codes to be developed and initial theory to be formulated. Strauss and Corbin (1990; 1998) outline a third step where the researcher engages in axial coding, wherein data are put together in new ways after open coding, allowing the researcher to make connections between categories. In particular, the researcher selects one open coding category, places it as the central phenomenon, and then relates all other categories to it.

During these analytic processes, researchers look at “conditions, context, action/interactional strategies and consequences” (Strauss & Corbin, 1990, p. 96) as they code data. By this point in the analysis process, the researcher is ready to commit to a set of core codes. The next step is for researchers to use selective coding of data, using the set of core codes to guide the coding and filtering out of data that have little importance to the core categories and supporting properties. Note, the filtered-out data are not totally discarded. Instead, they may be used to test the constructs later in the process or provide discrepant or conflicting explanations of events or actions.

Once a large enough number of the data have been carefully analyzed in this manner, researchers begin to selectively sample new data that are collected, using the core codes. This is called theoretical sampling and is followed by the development of theoretical codes, or the process of connecting theoretical ideas to the data. Researchers know that theoretical sampling and coding are key to seeing how various concepts come together into a theory that addresses one’s research purpose and questions. It is important that these theories are not introduced too soon, but are developed carefully during the analysis process. Often theories are conceptualized and clarified theoretical memoing, or the creation
Glaser (1978), in particular, discusses the importance of memoing, reporting that “Memos are the theorizing write-up of ideas about substantive codes and their theoretically coded relationships as they emerge during coding, collecting and analyzing data, and during memoing” (1978, p. 83). Glaser and others (Wolcott, 1990; Alvermann, O’Brien, & Dillon, 1996) also indicated that it is critical to engage in memo and other forms of writing early and often during data collection and ongoing analysis of data. When researchers write and sort memos, they are engaged in a critical process that allows new ideas to emerge and the connection of ideas, leading to a theory that intricately explains the phenomenon under study. In the final product, the categories and properties generated throughout the data analysis processes, along with the theoretical memos, are used to explain conditions, context, action/interactional strategies, and consequences. Tables, figures, and data excerpts are used as evidence to support the write-up, and the theory generated is linked with the existing literature in the field. What follows is an example of GTM in action, to serve as an illustrative case of the specific processes a researcher undertakes when engaging in this form of inquiry.

Grounded Theory in Practice

In Dillon’s dissertation research (1985), later reported in Dillon (1989), she reports on a year-long GT study of one teacher and his students in a low-track secondary English-reading classroom in rural Georgia. Her research purpose was to generate a description and interpretation of the social organization in the classroom. Of special interest in this study were the actions and patterns of actions the secondary teacher displayed during daily classroom lessons, how these actions were formed and influenced by the students’ actions, and how the actions impacted the social organization of the classroom and the cognitive and affective learning of the students. Four research questions guided the data collection:

1. What is the nature of the social organization in the observed classroom?
2. What verbal and nonverbal actions/patterns of action does the teacher display as he interacts with students that have low reading ability? How does the context of the learning situation/social organization influence the teacher’s actions/patterns of action?
3. How does the teacher perceive and interpret his own actions in various contexts involving students that have low reading ability? Does the teacher perceive his actions changing when working with students that have average or above-average reading ability?
4. How do the students in the observed class and administrators of the school perceive and interpret the actions of the teacher during lesson interactions?

Dillon merged an ethnographic approach, designed to address the classroom, school, and community cultural influences played out in the classroom, and a more fine-tuned classroom interaction analysis, addressed by the lens of symbolic interactionism (Denzin, 1978). Primary data for the study were collected in the form of field notes, and audio- and videotaped lesson transcriptions were collected during an exploratory phase from September through February on a weekly and two-weekly basis, and from March through May on a daily basis. In her role as participant observer, Dillon sat with the students during class, participating in the activities; talking with them before, during, and after lessons; and writing field notes. Her daily site visits culminated in conversations with the teacher, Mr Appleby, after class, during his planning period. These primary data sources were
Dillon collected and analyzed the data simultaneously using the constant comparative method (Glaser & Strauss, 1967). Her process involved combining inductive behavior-category coding with simultaneous comparison of all incidents observed, and was used with all data. Her daily analysis procedure consisted of fleshing out, reading, and rereading field notes; listening to and transcribing audio- and videotapes; looking for patterns of actions/meanings in the data; and reflecting on the data by writing theoretical memos (Glaser & Strauss, 1978) or analytic insights. She continued this process as she collected data, looking for incidents that confirmed or disconfirmed her initial assertions about the social organization in the classroom. These initial assertions included theories that Dillon thought undergirded Appleby’s actions, in particular the delicate balance between teachers who help students learn and teachers who help students learn helplessness. Dillon constructed theoretical memos depicting her thinking processes as she tested assertions, and she looked for key linkages in the data connecting similar instances of the same phenomenon (e.g., her observation and interpretation of an event or action, as compared to those of the three key informants and Appleby). After the school year ended she continued to test and retest her assertions and the categories and properties that were emerging, examining and reexamining all data. Part of her analysis process included cutting apart one copy of all field notes and interview transcripts and placing common incidents together on colored sheets of paper—a separate color for each category. This process helped her display the data in order to count the number of incidents under each category to see if saturation had been reached. (Saturation is reached when a researcher has multiple instances of a phenomenon that occurs over several contexts and time frames, reassuring the researcher that she has evidentiary warrant to support an assertion.) She also continued to read the intact copies of the data to keep a holistic picture in mind. During the analysis process she asked Appleby to read, react to, and help her firm up the assertions and the categories, properties, and instances of data under these assertions.

The emerging theory that Dillon generated from the data analyses was that the social organization in the observed classroom was constructed jointly by Appleby and his students; Appleby assumed the role of translator and intercultural broker (Erickson, 1986) during teacher and student interactions. In this role, he worked to provide a bridge between students’ home culture and school culture. He also interacted with students in ways that met their cognitive and affective needs. Thus, Appleby established an environment in the classroom that resulted in reduced resistance to learning and increased active participation during lessons. Dillon generated 11 categories, each with 5–10 properties (Dillon, 1985) that supported her theory. In a later analysis (Dillon, 1989), she took the 11 categories and consolidated these into three core interrelated categories: (a) Appleby established an open, risk-free environment; (b) he strategically planned and structured lessons to meet the interests and needs of his students; and (c) he implemented lessons in which all students could be active, successful learners. In her write-up, Dillon defined each category and provided evidence using vignettes, excerpts from field notes, interview comments, and documents. For example, for the category “Implementing lessons in which students can actively participate,” Dillon showed how Appleby created the environment, planned the content to be learned, and structured lesson activities to promote students’ active, meaningful learning. Three properties supported the category of implementing lessons where students could actively participate: (a) allowing students to use their natural language during lesson interactions and transforming the teachers’ language to match that of his students, (b) anticipating possible difficulties students might have with assignments and adapting lessons to meet the needs of students, and (c) bridging gaps or scaffolding between the background knowledge students had and new concepts and materials they were to
learn. To show Appleby as scaffolding instruction (property [c] above), Dillon shared a clip from a lesson on *The Old Man and the Sea*. During these interactions Appleby helped students bridge the gap between a previously read portion of the story and the portion they were going to read next, and explained difficult vocabulary using verbal and non-verbal means.

Appleby: LaVonne, tell us a few things about the story thus far. How long has the old man been without fish?
(A group of students answer with LaVonne. Appleby asks LaVonne if she’d like to read aloud from the text—she agrees. As she reads Appleby stops her at the points he would have stopped at, and fills in information he believes his students need to know in order to understand the rest of the story.)
Appleby: Ok, *but*, bait in this story is not like you may be used to. It’s fish you use to catch other fish—not worms like some of you asked. (and a bit later in the lesson)
Appleby: Ok, *turtle-ing*—now this is how you used a ship with a crow’s nest. (He stops to explain what a crow’s nest is for a student that asks. Appleby also explained how bad the glare from the sun on your eyes was during the whole process.) (Lesson Transcription—4/30)

After this example, Dillon interpreted the data clip for readers, describing how Appleby attempted to build background knowledge for his students as they read by teaching vocabulary in the context of the story, in the belief that this is more meaningful for the students. Dillon concluded her overall analysis by bringing all the categories and properties together, weaving the emerging theoretical ideas she had generated as she presented her findings together for the reader. In the end, Dillon linked her emerging theory with previous research, and pressed the field forward in new directions—theoretically and methodologically—with her concluding section about what makes a teacher effective.

**Deconstructing the Example**

What criteria are used to determine the quality of GTM studies? The excerpt above shows how GTM was used by a qualitative researcher who worked to understand events in one context, over time, where large numbers of data were systematically collected and analyzed in an ongoing fashion. Initial speculations were compared with subsequent data, and the researcher used a variety of systematic analysis strategies to discern patterns in actions, events, and perspectives held by participants. The resulting assertions were larger units of explanation for what occurred in this classroom and why, and the categories and properties delved into facets of the assertion statement to illuminate specifics in the setting, thus offering stronger arguments for the assertion. Each category and property was clearly defined, and data excerpts that best illuminated that category or property were provided, usually from more than one data source.

The most important criterion used to judge GT studies focus on validity, although not in the traditional sense of this term. Studies are judged by whether the concepts (categories and properties) put forth closely fit the phenomena they purport to explain. A careful and thorough process of constant comparative analysis helps to ensure this result. In addition, the findings of the study should be relevant to the participants under study, and the theory should be workable in indicating how the problem is resolved or the phenomena under study are understood. In a strong study the theory can also be modified, through additional constant comparative analysis, to reflect new and relevant findings (Glaser & Strauss, 1967; Glaser, 1978; 1992). Strauss and Corbin (1990) elaborate on these key ideas, indicating two levels of criteria for evaluating a GT study. The first level includes seven
criteria and focuses on a series of questions that readers might ask as they read a study and that enables the readers to make judgments about the components of the research process and the resulting write-up. These questions focus on how the sample was selected, how major categories emerged, what evidence led to these, how the theoretical sampling process unfolded, what emerging hypotheses were, and how and why core categories were selected. The second level of criteria focuses on the empirical grounding of the study and includes the following set of questions:

Are concepts generated? Are the concepts systematically related? Are there many conceptual linkages and are the categories well developed? Do they have conceptual density? Is much variation built into the theory? Are the broader conditions that affect the phenomenon under study built into its explanation? Has process been taken into account? Do the theoretical findings seem significant and to what extent? (Strauss & Corbin, 1990, pp. 252–7)

These researchers note that the criteria are guidelines, to account for future innovations in the field. But they follow this statement with a caveat, noting that is critical for GTM researchers to be forthcoming with their research processes and procedures to help readers understand the quality and value of studies.

GTM is a substantive area of research and provides a flexible, yet carefully thorough set of procedures for researchers to use when trying to understand complex problems or events in context, and over time, where large numbers of data are collected and need to be systematically analyzed to result in an explanation that will be of use to the participants involved in the research. This approach continues to evolve to meet the needs of researchers and their interests (Charmaz, 2005), and when used by skilled and thoughtful researchers, it can advance many fields where it is employed.

SEE ALSO: Case Study; Ecological Approaches in Qualitative Research; Epistemology and Ontology; Interviews in Qualitative Research; Positivism and Postpositivism; Qualitative Corpus Analysis; Qualitative Literacy Research; Qualitative Teacher Research; Researcher Reflexivity; Validity in Qualitative Research

References


8 GROUNDING THEORY AND QUALITATIVE RESEARCH


Suggested Readings