Does Grounded Theory Have a Place in Graduate Research?

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ABSTRACT

The purpose of this paper is to examine the practical use of the social constructivist grounded theory methodology in graduate studies and provide clarity on how this methodology can be used within graduate studies in a way that does not distort or change the social constructivist grounded theory assumptions and 21st century grounded theory principles. The framework for social constructivist grounded theory provided by Charmaz (2014) outlines a thorough research process graduate students can use with fidelity if given the opportunity. However, using social constructivist grounded theory is considered "the road less traveled" by most graduate students and their advisors. Professors can support students when using constructivist grounded theory in a way that does not distort the methodology if they are well versed in it. While this research process takes a different approach than most traditional thesis and dissertation studies, it can still be a meaningful and rich experience for graduate students.

KEYWORDS: Graduate students, grounded theory, higher education, qualitative research

A component of many graduate programs, regardless of the institution or the program of study, is for students to engage in meaningful scholarly work. Graduate students often take a series of methodology classes to better understand the research process and engage in some type of research project during their program. Selecting a specific methodology for their research is an important and often challenging step in the thesis or dissertation process (Jones & Alony, 2011). One type of qualitative methodology, social constructivist grounded theory, seems to be less understood and produces more anxiety among novice researchers compared to other methodologies, like case studies or ethnography (Timonen et al., 2018). In fact, Nagel et al. (2015) explained that constructivist grounded theory was similar to choosing the road "less traveled" (Frost, 1916, line 20). In Nagel et al.'s (2015) literature review exploring the experiences of using constructivist grounded theory in PhD studies, they discovered only two out of 457 articles actually examined the experience of using this methodology in graduate education. Despite the lower usage of grounded theory, graduate students should not shy away from using the social constructivist grounded theory approach when conducting research, as this approach can help students gain deeper insights into who they are as researchers and how they understand the concepts and theories they are studying. With a deeper understanding of grounded theory on the part of professors, specifically social constructivist grounded theory, this methodology can provide a rich and meaningful research experience for graduate students (Nagel et al., 2015).

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Defining Social Constructivist Grounded Theory

Originally developed by Glaser and Strauss in the 1960s, grounded theory has continued to develop as researchers have adopted and adapted the framework over the decades (Charmaz, 2014). Bryant and Charmaz (2013) defined grounded theory as a qualitative form of conducting research that "focuses on creating conceptual frameworks, or theories, through building inductive analysis from the data" (p. 608). This method of inquiry looks to derive a theory from an experience, process, or phenomenon (Creswell, 2015). The grounded theory method "favors analysis over description, fresh categories over preconceived ideas and extant theories, and systematically focused sequential data collection over large initial samples" (Bryant & Charmaz, 2013, p. 608). Grounded theory design requires multiple data points, with several stages of data collection and analysis. Constructivist grounded theory relies heavily on the use of the participants' voice and keeping the participant's words intact during analysis to gain understanding and insight into the phenomena (Mills et al., 2006). The data should be a place where participants' voices, especially those who might be ignored or not given space, can be brought in to better understand the social phenomena or experience (Charmaz & Belgrave, 2019). Therefore, the need for rich data is crucial to get "beneath the surface of social and subjective life" (Charmaz, 2006, p. 13). Social constructivist grounded theory can be a daunting form of research, especially for graduate students, due to the amount of data and analysis needed to support a grounded theory (Nagel et al., 2015; Timonen et al., 2018). Additionally, researchers using any form of grounded theory need to be flexible and dynamic in their methodological approaches based on what is emerging from the data. However, with support from professors who understand grounded theory methodology, graduate students can successfully conduct social constructivist grounded theory research as part of their thesis or dissertation work (Nagel et al., 2015). To distinguish social constructivist grounded theory from traditional grounded theory and other more traditional qualitative research methodologies, Table 1 shows what makes social constructivist grounded theory unique. Each of these points will be expanded upon later in the paper.

Table 1

Social Constructivist Grounded Theory vs. Classic Grounded Theory vs. Other Traditional Qualitative Approaches

	Social Constructivist Grounded Theory	Classic Grounded Theory	Traditional Qualitative Research Methods
Lit Review Purpose	To ground the study primarily during the data analysis phase	Serves as a point of data; Used as part of the triangulation process	To identify a gap in the literature to justify the research
Lit Review Location	A brief baseline review in the beginning, more thorough "grounding" in the literature through analysis	Discourages review of literature until data has been collected and analyzed to avoid biasing the researcher and stifling the process	After the introduction to position the research within the research already conducted in the field
Data Analysis	Ongoing using constant comparative analysis; requires a large amount of data and analysis to support a GT	Data collection and analysis occur simultaneously using constant comparative analysis	Typically, analysis happens once all data has been collected
Coding	Encouraged to use gerunds to focus on actions taking place and processes within the data; Open, Focused/Selective, and Theoretical Coding	Line-by-line coding examines what is happening in the data; As categories are organized, selective coding occurs; Substantive and Theoretical Coding	Coding for topics to make generalizations about the data
Implications	Used to more deeply understand the phenomenon	Used to conceptualize rather than describe	Used to generalize to larger or other populations
Role of Improvisation in Research	Improvise methodological and analytic strategies throughout the research process	Improvise methodological and analytic strategies throughout the research process	Stay "true" to the methodology by following parameters outlined within the selected methodology
Role of the Researcher	Reflexivity and memoing act to ensure the researcher grapples with their biases and stances; researcher acts as co-constructor in the construction of the theory	The researcher should remain objective and work to remove any preconceptions or biases which may impact the final theory (Glaser, 2012)	Researcher likely identifies their position within the research and identifies how their position, identities, and lived experiences might impact the research
Findings	A theory derived from the data that has credibility, originality, resonance, and usefulness (Charmaz, 2014)	A theory derived from the data that has fit, work, relevance, and modifiability (Glaser, 1978)	Findings that have potential implications for the field
Overall Goal	Looks to construct a theory	Conceptualize a phenomenon to support a theory grounded in data	Aims to test or investigate a hypothesis or phenomenon

Charmaz (2006), one of the first researchers to establish a social constructivist grounded theory standpoint, wrote about how an "inquiring mind, persistence, and innovative data-gathering approaches can bring a researcher into new worlds and in touch with rich data" (p. 13). For graduate

students, this approach offers an opportunity to explore answers to questions and to gain a deeper understanding of the constructs they are studying as they are just becoming experts in their field. Charmaz (2008) expanded on the social constructivist grounded theory by developing a set of assumptions and 21st-century grounded theory principles. Interestingly, these assumptions are in line with Glaser's original assumptions of grounded theory (Charmaz, 2008).

The four assumptions of Charmaz's (2008) social constructivist grounded theory include:

- "Reality is constructed under particular conditions" (p. 402).
- Research emerges from interactions.
- The positionality of both the researcher and the participant should be taken into account.
- The researcher and participant "co-construct the data- data are a *product* of the research process, not simply observed objects of it" (p. 402).

Studies should be designed to ensure saturation of data; however, it should be assumed the findings of a social constructivist grounded theory study are unique to those participating. The implications of a social constructivist grounded theory study are to promote a deeper understanding of the concepts, not to generalize.

The four 21st-century grounded theory principles (Charmaz, 2008, p. 403) include:

- Treat the research process itself as a social construction.
- Scrutinize research decisions and directions.
- Improvise methodological and analytic strategies throughout the research process.
- Collect sufficient data to discern and document how research participants construct their lives and worlds.

In following the social constructivist grounded theory framework (Bryant & Charmaz, 2013; Charmaz, 2006, 2014), the researcher collects data for a study by:

- Conducting a basic baseline review of the literature to refine the research questions and have a general idea of the concepts.
- Establishing the position of the researcher: Reflexivity should occur throughout.
- Collecting various points of data and analyzing data through constant comparative analysis using open and focused coding to develop concepts.
- Using memoing to reflect on emerging ideas and make connections between codes using the literature to create categories grounded in data.
- Creating a visual diagram of any theoretical theme developed from the categories.
- Writing the findings to present the theory derived from the data.

Following this methodology, graduate students can successfully conduct social constructivist grounded theory research studies without changing the methodology's framework. This paper will outline the benefits of using social constructivist grounded theory in graduate programs and ways to conduct grounded theory research in graduate programs.

Benefits of Using Grounded Theory in Graduate Research

There are numerous benefits for novice and experienced researchers to utilize a social constructivist grounded theory methodology for conducting research. The battle between qualitative and quantitative methodologies, or the "paradigm wars," took off in the 1980s when qualitative research was growing in popularity (Mertens, 2020, p. 30). In fact, this debate has recently yielded attention from mainstream media sources (Dwyer, 2022; Rituparna, 2024). Part of the original intention of Glaser and Strauss's 1967 work titled "The Discovery of Grounded

Theory" was to be part of leading the charge in defending the quality of qualitative research (Charmaz & Thornberg, 2020). The systematic nature and thoroughness of grounded theory require researchers to be transparent about what they learn through the data, practice reflexivity throughout the research, and ground new discoveries within the literature, thus showcasing the strength of this methodology.

Another strength of grounded theory is the flexibility it provides the researcher. "Charmaz's (2014) ConGT draws on analytical frameworks of both Glaserian and Straussian traditions but honors the flexibility of researchers co-constructing theoretical explanations of phenomenon with participants" (Nagel et al., 2015, p. 368). This flexibility allows the researchers' own paradigm and experiences to be honored during the research process.

In addition to flexibility and the systematic nature of grounded theory, El Hussein et al. (2014) added the following strengths to using grounded theory: "[grounded theory] provides intuitive appeal, fosters creativity, has a potential to conceptualize, and provides for data depth and richness" (p. 3). Pragmatic researchers typically find the intuitive appeal useful in answering their research questions and challenging their thinking. Since grounded theory does not begin with a hypothesis, it lends itself to a creative process of exploration as researchers use empirical data to generate concepts and theories. Grounded theory stands apart from other qualitative methodologies in its ability to generate concepts using constant comparison.

Applying all these strengths to graduate students, one can see the benefits of using grounded theory in graduate research. While grounded theory is an exhaustive process that can take extensive time, graduate students have the potential to enjoy using grounded theory over other methodologies due to its creative nature, depth and richness, and intuitive appeal (El Hussein et al., 2014). Glasser's (1998) words summarize the benefits of using grounded theory: "GT is enjoyable, meaningful, informative, and empowering" and hence, "JUST DO IT" (p. 19).

Conducting a Baseline Review of Literature

The review of literature within grounded theory methodology seems to be the most challenging for professors to grapple with when graduate students conduct grounded theory studies (Nagel et al., 2015). Since a key step in the research process is a critical review of the research, graduate students must demonstrate the ability to carefully review past and current research around their topic of study and to write a literature review that skillfully weaves together various studies to express knowledge about the topic (Galvan & Galvan, 2017). In most methodologies, this review of literature occurs in the beginning stages of the study (Mertens, 2020). However, in social constructivist grounded theory, a deep and thorough literature review should not occur in the beginning stages of the research process.

Instead, in social constructivist grounded theory, a brief, initial review of the literature serves to provide some basic understanding of the topics and concepts being examined and to help refine the research questions, with the understanding that scholarly research related to the central questions should be continuously examined as the data are collected and analyzed, and themes begin to emerge (Charmaz, 2014). Social constructivist grounded theory recognizes that researcher cannot remove their lived experiences and previous knowledge from the lens through which they view data. Therefore, the initial review of the literature should only serve to help graduate students begin to examine the research questions and engage with reflexivity processes.

Traditional grounded theory researchers (Glaser, 1992; Glaser & Strauss, 1967; Strauss & Corbin, 1990) cautioned against clouding the mind with preconceived ideas and assumptions that might limit the findings and put constraints on the research. However, modern social constructivist grounded theory theorists (Charmaz, 2006; Bryant & Charmaz, 2013) express the importance of

having a basic understanding of previous literature in order to be reflexive, especially those just beginning in their fields, such as graduate students. As Bryant and Charmaz (2013) explained, "An open mind does not imply an empty head" (p. 20). Therefore, a more basic review of the literature can provide the framework to begin examining the research questions. This is different from classic grounded theory, where a literature review may not occur at all, and different from other methodologies, where an extensive review of the literature and a fully developed "Review of Literature" chapter would be written before data collection and analysis occurs.

While classic grounded theorists argue against the literature review to avoid contamination of the data, social constructivist grounded theory requires a reexamination of the literature in order to connect the current themes from the study to previous research findings in an effort to keep the data grounded. The literature examined in the initial review of literature serves to provide a foundational understanding as the graduate student puts the study into action. In contrast, a more detailed and thorough literature review occurs as data is analyzed and evaluated.

For graduate students, this means the literature review is an ongoing process. From the beginning, when they form their questions and design their study, until the end, when they use previous literature to support the construction of theory, graduate students are deeply involved with the literature in their field. This also means the initial literature review chapter written in a thesis or dissertation will look different in a social constructivist grounded theory study than in other types of studies. One common approach to the literature review in a grounded theory study is to have graduate students conduct the initial baseline literature review and then, after conducting the study, go back to complete the literature review, developing a full chapter for the literature review. This creates a more robust chapter in the thesis or dissertation and places it within the more linear order of the written document, but it goes against the purpose of reviewing literature within a social constructivist grounded theory study.

In staying true to the social constructivist grounded theory methodology, which looks to construct a theory rather than test a hypothesis, a more vigorous review of literature can occur during the data analysis process. The previous literature should serve as another point of data. Therefore, the previous literature review data can be woven into the analysis section of the thesis or dissertation as triangulation of data occurs. The review of literature during the analysis is conducted as the theory begins to be constructed to ground the theory and is integrated into the conclusions to further support the grounded theory. This approach would require flexibility with how the Review of Literature chapter appears in written form but would stay true to the more nonlinear social constructivist grounded theory methodology.

Establishing the Role of the Researcher: Reflexivity

The role of the researcher in social constructivist grounded theory is an integral part of the research process. This reflexivity is important for the researcher to identify their epistemological stance, in addition to clearly exploring their professional and personal experiences, which influence how they interact with the data. Schwandt (2015) defined reflexivity as "the process of critical self-reflection on one's biases, theoretical predispositions, preferences, and so forth" (p. 268). Reflexivity is about examining how the researcher positions themselves within the study. Creswell (2009) approached the concept of reflexivity in a research study as when "the writer is conscious of the bias, values, and experiences that he or she brings" (p. 216). For social constructivist grounded theory studies, like other qualitative research, it is important for the researcher to consider their position within the study in order to remain aware of how their own thoughts and lived experiences may influence how they interpret the data. Sample statements of reflexivity from social constructivist grounded theory studies are in Table 2.

Table 2

Sample Reflexivity Statements for Social Constructivist Grounded Theory Studies

SCGT Study	Statement of Reflexivity
Walton et al. (2023)	"In alignment with the constructivist approach to grounded theory and credibility, we remained reflexive throughout the research process. We asked questions of the data to assist with collecting data that would help us better understand how culture and community influence middle-class Black women's perspectives of wellness. For instance, we considered the multiple ways middle-class Black women discussed wellness and were often challenged by how middle-class Black women discussed their experiences with wellness in relation to women of other racial and ethnic groups." p. 7
Paganini et al. (2024)	"Reflexivity was maintained as the interviews were evaluated by three of the researchers (A.P; L.MW; SAK) to recognize potential bias, and any preconceptions were stated before the study. Moreover, looking at the data for competing conclusions further strengthens the results. Reliability and consistency of the analytic procedure was ensured with a transparent research process [26]. To avoid bias, an inductive analysis method was used, and the transcribed interviews and memos were read by several researchers (A.P; L MW; SAK). The codes, subcategories and categories were discussed iteratively until consensus was reached during the research process [27]. The participants were given opportunity to give feedback on the theoretical model." pp. 2-3
Zhang et al. (2023)	"To ensure credibility, the research team accurately reviewed the interview transcripts, compared the extracted codes to the initial data, and repeatedly checked the analysis against the views of the study participants to maintain reflexivity and avoid the researcher's views influencing the study data." p. 3
Davidson et al., (2023)	"The researchers also acknowledged that their prior knowledge, experiences and beliefs contributed to the research, through research team reflexive exercises as a method of self-reflection." p. 2303 "Constant reflexive memo writing and regular group reflexive discussions were conducted throughout the data analysis process to improve the rigour and quality of the analytic process." p. 2304

As Priya (2016) explained, "The task of a grounded theory researcher is to connect the dots to bring forth the socially constructed reality while being aware of one's own presuppositions" (p. 54). Throughout the course of the study, graduate students should continually examine their stance in relation to the concepts being examined. In staying true to social constructivist grounded theorists' approach to research, it is imperative that the position and role of the researcher are clearly considered. Graduate students benefit greatly from this process as they experience the examinations of their own stances early in their research careers (Gentles et al., 2014; Milner et al., 2019).

Data Collection and Analysis in Grounded Theory

Data analysis begins once the first datum is collected and helps to refine and shape data collection throughout the study, as the data collection and analysis in grounded theory are complementary and iterative (Rose et al., 2015). Data collection and data analysis occur

simultaneously throughout the study, with data put through several stages of refinement to ensure themes are not being forced or miscoded (Bryant & Charmaz, 2013). While many research methods have a distinct data collection phase, followed by a distinct analysis phase, grounded theory requires the researcher to begin analyzing data as soon as data collection begins.

The data in a social constructivist grounded theory study should be analyzed according to the social constructivist grounded theory framework, which requires the data to be examined throughout the course of the study. As soon as the data collection begins, the data is transcribed and coded. This process begins by comparing data points with similar data points; then, as categories emerge, the researcher compares various data points. Coding is the "process of defining what the data is about" (Bryant & Charmaz, 2013, p. 605). In social constructivist grounded theory, the codes will emerge as the data develops and is examined (Bryant & Charmaz, 2013). Through coding, "conceptual abstraction of data and its reintegration as theory takes place" (Holton,, 2013, p. 265). Using the steps for coding outlined by Charmaz (2014), the data goes through two steps of analysis: open/initial and focused coding. It is through open coding that categories begin to emerge. As the data are initially examined, concepts are labeled, and categories are defined. Then, through focused coding, the data is re-examined to determine if any relationships or connections can be made during the initial coding process. Holton (2013) defined this stage of coding as the time when the researcher "must be able to develop theoretical insights and abstract conceptual ideas from various sources and types of data" (p. 275). For graduate students who may not have a lot of experience, this may seem like an overwhelming process, but collecting and analyzing data as a simultaneous process allows for first-hand interaction, which leads to greater insight and understanding of concepts emerging from the data.

Open Coding

Open coding begins at the beginning of the study. Charmaz (2014) wrote, "From the start, careful word-by-word, line-by-line, or incident-with-incident coding moves you toward fulfilling two criteria for completing a grounded theory analysis: fit and relevance" (p. 133). Codes are constructed by naming what we deem important or significant in the data (Charmaz, 2014). Careful construction of codes organized into categories ensures the experiences of the participants are solidified (Charmaz, 2014). The initial phases of coding begin by breaking down the data, line-by-line, into codes. Graduate students would begin this process once they have collected their first point of data using In-vivo coding, which involves using the research participants' own words and phrases to see clear patterns emerging from the data. As graduate students go line-by-line examining the participants' words and phrases, they would apply the gerunds coding method. This is a key characteristic of social constructivist grounded theory methodology. Glaser (1978) and Charmaz (2014) both advised grounded theorists to code using gerunds because it encourages the researcher to see processes and stick to the data. When using gerunds, researchers code using verbs (-ing words), allowing for a close examination of actions taking place. This is a more conceptualized approach to analysis rather than coding for topics, which leads researchers to generalizations of the data. Each datum point should go through the initial coding process, which leads to further analysis using a focused coding process.

Focused Coding

Once patterns begin appearing through initial codes and the researcher begins to identify patterns, a more focused approach should take place. During this focused coding, the researcher analyzes the initial codes to determine overarching categories. From there, the researcher seeks to

determine if a core variable exists, connecting the main categories. This core category supports the emerging theory. Charmaz (2014) explained:

> Focused coding means using the most significant and/or frequent earlier codes to sift through and analyze large amounts of data. Focused coding requires decisions about which initial codes make the most analytic sense to categorize your data incisively and completely. It also can involve coding your initial codes. (p. 138)

The active process of focused coding during the research study strengthens the constant-comparative process to ground the data and fully develop the main categories. During focused coding, attention is placed on the initial codes that seem to have the most analytic power, leading to more robust and solid categories. To complete this step of focused coding, graduate students would need to examine the gerunds coding for emerging concepts or patterns to determine if there is one core category connecting the codes to support an emerging theory.

Constant-Comparative Analysis

Grounded theory calls for constant-comparative analysis of data. For graduate students who may not have a lot of experience with digging into data, the constant and comparative form of coding is when they first experience becoming intimately involved with their data. Constant-comparative analysis is "the process of taking information from the data collection and comparing it to emerging categories" (Creswell, 2013, p. 86). This method is constant because the researcher constantly returns to the beginning phases of data to compare similarities and differences. This constant comparison may or may not construct a category as the researcher analyzes the data, but it will strengthen the evidence in support of the emerging theory. Glaser and Strauss (1967) provided a framework for the constant comparative process consisting of four stages:

1. Compare incidents applicable to each category
2. Integrate categories and their properties
3. Delimit the theory
4. Write the theory (p. 105)

Glaser (2001) wrote, "The final outcome of the constant-comparative process is a generated grounded theory with theoretical completeness. It is a theory that fits and works and is relevant in explaining how a main concern is continually resolved" (p. 190). Throughout the coding process, memoing should also occur. As categories begin to emerge and their properties become more defined, a core category is derived from the data. Delimiting occurred as a result of the emerging core category, as categories are reduced, and theoretical satisfaction becomes the focus. The theory is then written, using data to ground the theory.

Memoing

Memo writing allows the researcher to start interrogating and grappling with the data. Memo writing begins with the first collection of coded data, and the researcher begins to write out an analysis of the data. Memo writing also allows the researcher to interrogate any priori codes, codes that emerged from the initial literature review, researcher reflexivity, and theoretical framework while also grappling with a posteriori code after data was collected. The memo, in essence, is the first draft of the findings. Questions about the data, connections between points of data, and epistemological stances are included in the memoing. This serves to build a deeper understanding of the data and make sense of how the data tells the unique story in support of the emerging theory. This allows for a deeper understanding of the answers to the questions they are

asking. It requires them to think critically about each step of the research process and every piece of data collected. Memoing can also help keep the researcher on track with what they are doing throughout the study. Graduate students should keep reflection journals throughout their study and code their journals using in-vivo open coding. Charmaz (2014) explained, "We learn through studying our data. Initial grounded theory coding guides our learning. Through it, we begin to make sense of our data. How we make sense of it shapes the ensuing analysis" (p. 114).

Theoretical Sensitivity

Theoretical sensitivity is a critical component in grounded theory studies, especially for graduate students who are just beginning to understand the research process. "Theoretical sensitivity is the ability to understand and define phenomena in abstract terms and to demonstrate abstract relationships between studied phenomena" (Charmaz, 2014, p. 161). The researcher must begin the study with as few preconceived ideas as possible. This often involves extensive integration of the assumptions and biases the researcher brought to the study, along with clearly developing the role of the researcher. To ensure theoretical sensitivity is maintained throughout the study, the researcher draws upon multiple sources of data to make connections, keeps a reflexive memo to grapple with emerging theories, and uses open and focused coding to focus analysis on actions. Charmaz (2014) stated, "Theorizing means stopping, pondering, and thinking afresh. We stop the flow of studied experience and take it apart. To gain theoretical sensitivity, we look at the studied life from multiple vantage points, make comparisons, follow leads, and build on ideas" (p. 244). Remaining open to the different theoretical possibilities is critical to ensure data are coded through careful analysis to construct key categories that lay the foundation for the emerging theory. Theoretical sensitivity occurs to ensure the emerging theory remains grounded.

Theoretical Sampling

Grounded theory studies plan for various points of data to be collected. Various types of data are collected over the course of the study, allowing the researcher to sample the data. The initial sampling of data helps establish the study. This means the researcher examines the initial data collected to determine if additional data needs to be collected or if changes need to be made to the study. This could mean adding another point of data, adding questions to an interview, adding a new group of participants, or other actions to ensure thorough analysis. As categories begin to develop, theoretical sampling guides the direction of the study. As the researcher samples the data, certain data points become more purposeful sources of data. This sampling becomes a way to better examine emerging categories. As Charmaz (2014) pointed out, "theoretical sampling pertains only to conceptual and theoretical developments of your analysis; it is not about representing a population or increasing the statistical generalizability of your results" (p. 198). Ideas emerging from initial sampling shape the questions posed during the study, the lens through which data are examined, and the comparative way data is connected. The purpose of theoretical sampling is not in the amount of data collected but in having enough saturation in the categories to develop a theory (Charmaz, 2014). Charmaz (2014) wrote that saturation occurs when "you have defined, checked, and explained relationships between categories and the range of variation within and between your categories" (p. 213). For graduate students unfamiliar with the process of grounded theory, theoretical sampling reinforces the need to be critical when evaluating data.

Theoretical Sufficiency

Theoretical saturation is making judgments about when data has sufficiently become saturated (Charmaz, 2014). For grounded theory studies, the aim is to reach theoretical saturation. Oftentimes, with graduate studies, a stricter timeline must be adhered to, which puts some restrictions on the collection of data. However, copious amounts of data can still be collected and analyzed. Dey (1999) described a more appropriate term, *theoretical sufficiency*, as the determining point when enough data has been coded to suggest robust categories. Theoretical saturation may be hard to argue for graduate studies due to the time constraints. For this reason, the aim of data collection for graduate studies can be to have theoretical sufficiency, which keeps the integrity of grounded theory but allows graduate students to complete their studies within the timeframe of their program.

Generating Theory

Social constructivist grounded theory, according to Charmaz (2014), "aims to create theory that has credibility, originality, resonance, and usefulness" (p. 236). Grounded theory is the methodology for theory development, the theory that is grounded in data (Charmaz, 2014; Glaser, 1978; Glaser & Strauss, 1967). Creswell (2013) made clear the distinction, "The intent of grounded theory is to move beyond description and to generate or discover a theory" explaining a phenomenon (p. 83). Grounded theory emphasizes theorizing over substantive areas in an ongoing active process (Charmaz, 2014). A constant-comparative method of analysis is used to associate theoretical units of a theory through data comparison in terms of categories and their properties (Glaser, 1978). Glaser (1978) wrote, "Such conceptual comparisons result, as we have seen, in generating, densifying, and integrating the substantive theories into a formal theory by discovering a more parsimonious set of concepts with a greater scope" (p. 150). Substantive theory occurs first, as it is open-ended as it works through the data, placing new ideas and concepts from data into a larger category. From there, the theory may be derived from the data. Creswell (2013) defined theory as "an explanation of something or an understanding that the researcher develops" (p. 85). While graduate studies may lend support to an emerging theory, more studies will most likely be needed to move theory over to fact. This, however, should not be a reason to avoid grounded theory methodology, as graduate students are just beginning their research careers and can continue to conduct research to support the theory emerging from their graduate study.

Validation Strategies

Trustworthiness in grounded theory needs to be established from the beginning of the study and maintained throughout the entire process. Trustworthiness in grounded theory is about intentionally using accepted validation strategies to "document the accuracy of their studies" (Creswell, 2013, p. 250). Creswell (2013) wrote about several validation strategies that graduate students can use within their studies to maintain trustworthiness, which could include clarification of researcher bias, "prolonged engagement and persistent observation," triangulation of data, and "rich, thick description" (Creswell, 2013, pp. 251–252). In addition to these validation strategies, peer-briefing and member-checking can also be used. These are put in place to ensure limitations do not weaken the study.

At the beginning of the study, the researcher should work to clarify researcher bias and assumptions, which is often noted when defining the role and position of the researcher. As Creswell (2013) stated, "In this clarification, the researcher comments on past experiences, biases,

prejudices and orientation that have likely shaped the interpretation and approach to the study" (p. 251). The role of the researcher should be articulated in the beginning but should also be continuously considered through memo-writing and conversations with participants. Creswell (2013) explained how prolonged engagement and persistent observation require the researcher to build trust with participants in order to learn more about the experiences of the participants. This includes maintaining close observation over a sufficient amount of time. Oftentimes, this happens through interviews with participants or through close observations and debriefing sessions.

Triangulation of data is a key strategy for a social constructivist study. In attempting to stay true to the methodology of grounded theory, data is analyzed at the beginning of the study, and codes are developed. As more data points are collected and coded, codes are compared. Coding then becomes more focused, leading to the core categories. The core categories lend support to the emerging theory. This process requires data points to go through constant triangulation. When "researchers locate evidence to document a code or theme in different sources of data, they are triangulating information and providing validity to their findings" (Creswell, 2013, p. 251). This should be evident in social constructivist grounded theory studies due to the constant-comparative method used in the analysis. Charmaz (2014) argued that "simultaneous data collection and analysis can help you go further and deeper into the research problem as well as engage in developing categories" (p. 118). The development of categories allows the researcher to define what is happening and grapple with it (Charmaz, 2014).

Peer-debriefing and member-checking can be used to ensure the conclusions found by the researcher are grounded in the data and to ensure the theory being derived from the data is a true reflection of the experiences and implications of the study. Peer debriefing allows the researcher to "confide in trusted and knowledgeable colleagues and use them as a sounding board for one or more purposes" (Schwandt, 2015, p. 230). For graduate students, this may be fellow graduate students, thesis or dissertation committee members, professors, or other mentors. Member-checking allows for the data to be continuously interpreted to ensure common themes and ideas are being derived, which is "simply another way of generating data and insight" (Schwandt, 2015, p. 196). Debriefing sessions provide opportunities for researchers and the participants to discuss the experience and analyze the data collected. Additionally, as Schwandt (2015) pointed out, "member-checking also allows the participant the courtesy of knowing what will be said about them and their experiences" (p. 196). After writing the findings, the researcher can send participants portions of the study for them to verify before finalizing the written portion of the study.

Rigor: Evaluating the Grounded Theory

Charmaz (2014) suggested using Glaser's (1978) *fit, work, relevance,* and *modifiability* when evaluating the grounded theory, stating Glaser's criteria as being "particularly useful for thinking about how your constructed theory renders the data" (p. 337). For graduate students, this provides a clear framework for determining the quality of their study. In addition to using Glaser's (1978) criteria for the evaluation of a grounded theory, Charmaz also recommends four criteria for ensuring a "wholesome grounded theory" (Alemu et al., 2015, p. 537). Graduate students can examine their study using the following criteria: credibility, originality, resonance, and usefulness (Alemu et al., 2015; Charmaz, 2014).

Charmaz (2014) argued that credibility is achieved when the researcher can support the categories, analysis, and theory with empirical data. Graduate students should be able to show how the data sufficiently merits claims and tells "a true reality of the participants" (Maher et al., 2018, p. 3). In order to support claims with empirical data, graduate students need to spend sufficient time with their participants and with the data. Member-checking ensures the credibility of the data,

along with keeping participants' voices intact. Constant-comparative analysis can ensure that graduate students become intimately aware of their data. Reflexive memoing is also a necessary part of credibility, as graduate students must grapple with their own assumptions and biases as they engage in the study.

As graduate students begin the development of their research questions, data collection, and data analysis, they should consider if their study might offer new insights or be of significance or originality. Charmaz and Belgrave (2018) wrote how data should "bring in voices that might otherwise be unknown and left out of our understanding of social phenomena" (p. 747). Graduate students should consider how their study could bring attention to the voices of those who have been silent or have been silenced as they consider the relevance of their study.

Charmaz and Thornberg (2020) explained how resonance should capture how the co-construction of theory accurately represents the participants' reality while also providing insights to others. Graduate students can ensure resonance through extensive time with the participants and constant comparative analysis. Member-checking to ensure the participants can make sense of the findings and agree with the analysis should also be done.

Graduate students must demonstrate how their theory is relevant (i.e., useful) and contributes to the lives of the participants, informs policies or practices, and/or adds to or creates lines of research (Charmaz & Thornberg, 2020). Charmaz (2014) poses the following questions, which graduate students should consider: "How does your work contribute to knowledge? How does it contribute to making a better world?" (p. 338). This is the essence of usefulness.

Visual Diagram of Emerging Theory

As the researcher moves through the social constructivist grounded theory methodology, data is coded and sorted into categories, which leads to the core categories. From the core categories, a theory begins to emerge. Once a theory begins to emerge from the data, a diagram should be created to explain the theory. Strauss and Corbin (1998) explained diagrams as "visual devices that depict the relationship among concepts" (p. 217). Social constructivist grounded theory challenges the graduate student to put their theory into a visual, reinforcing the need to be clear in the representation and explanation of the theory emerging from their study. By visually representing the theory from the data, relationships between categories can be explained graphically, reinforcing a grounded theory.

Writing the Thesis or Dissertation

As with all types of research, the findings of a social constructivist grounded theory study should be written and published. For graduate students, this usually comes in the form of a thesis or dissertation. However, the standard structure of a thesis or dissertation may need to be challenged before the graduate student begins their study. With a social constructivist grounded theory methodology, the review of the literature chapter will be shorter compared to literature reviews using other methodologies. The data analysis and conclusions chapters will most likely be longer and will include previous literature as a source of data. Graduate students should be able to define their role within the study in their writing and be transparent in their positionality. In addition, the framework for social constructivist grounded theory should be clearly outlined in the thesis or dissertation. A lack of understanding regarding data analysis and social constructivist grounded theory principles can lead to inaccurate findings within the writing. Therefore, graduate students should work closely with their professors or mentors to ensure they are using the social constructivist grounded theory methodology with fidelity and integrity.

Conclusion

As Creswell (2015) explained, grounded theory occurs in an environment constructed by the researcher and the participants. Answers to the research questions are constructed through concept development and the emergence of themes. As data are collected, these constructions are verified (Schwandt, 2015). Coding through constant-comparative analysis provides a thorough examination of the data, which may lead to an emerging theory grounded in data.

With a clearer understanding of social constructivist grounded theory methodology, professors can guide graduate students through the implementation of a social constructivist grounded theory study. While this approach may challenge long-standing expectations of the research process, social constructivist grounded theory should not be dismissed as a viable research methodology for graduate students. Social constructivist grounded theory methodology can be an enlightening and meaningful research experience for graduate students when used with integrity and fidelity, solidifying its place in higher education.

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