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GROUNDED THEORY: A GUIDE FOR A NEW GENERATION OF RESEARCHERS

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ABSTRACT

Aim/Purpose	Grounded Theory (GT) has grown and developed into several strands making its application all the more problematic, argumentative and remaining potentially as a research methodology to avoid when it comes to doctoral research, early-career research. Thus, the purpose of this paper is to revisit GT as a general approach and present an evolved and more considered step-by-step guide to conduct research using this methodology. A leadership development context is applied in this paper to examine how this methodology could work for a new generation of researchers, i.e., new to doctoral research or an early career researcher.
Background	Since its academic inception in the seminal text in 1967 (Glaser & Strauss, 1967), GT has emerged and developed to become a popular choice for researchers contemplating qualitative data approaches amongst a variety of subject backgrounds. However, the divergent development and criticized approaches within GT families can lead researchers to avoid such a research methodology. This can especially be the case within doctoral research or other early-career research. Indeed, a specific/explicit GT guideline or framework to assist doctoral students in conducting GT research does not currently exist.
Methodology	There is a general review of GT approaches followed by theoretical development of a framework and an applied doctoral example.
Contribution	The three evolved methods in GT research and the developed supporting author-designed three-phase research framework will contribute to two aspects. Firstly, the step-by-step guideline can reduce the sense of confusion within an area where criticisms and conflicting approaches exist. This will hopefully assist the next generation of GT researchers in conducting their research through detailed processes and applications. Secondly, there is arguably a need for more GT applications and evolvements to further enrich the body of knowledge that exists in this area and further support a diversity of subject research.

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Findings	The authors outline numerous differences and similarities within divergent GT practices. By integrating Glaser's four core principles and three evolved methods, the authors design a three-phase research framework that presents a transparent step-by-step guide. This framework attempts to mitigate criticisms within GT approaches whilst maintaining clarity, flexibility, depth, and rigour within a study.
Recommendations for Practitioners	Three GT evolvements (the two-step literature review method, two-step open-coding method, and two-step theory-constitute method) provides greater clarity within a rigorous author-designed three-phase research framework that demonstrates a transparent step-by-step guide. These techniques can encourage a new generation of GT researcher through confident and structured analytical techniques.
Recommendations for Researchers	We hope the presented framework and concise view of GT in action will inspire other doctoral students and new GT researchers to conduct GT research following an evolved GT framework.
Impact on Society	The debates and innovations around GT, like in this paper, are needed within a methodological society to keep the area contemporary and constantly evolving.
Future Research	The framework presented will need further testing beyond the parameters set out here. We hope future research can adopt the evolved GT techniques and procedures to enforce research quality overall and inspire further GT methodological developments.
Keywords	grounded theory, doctoral students, early career researchers, methodology

INTRODUCTION

Since its academic inception in the seminal text in 1967 (Glaser & Strauss, 1967), Grounded Theory (GT) has emerged and developed to become a popular choice for researchers contemplating qualitative data approaches amongst a variety of subject backgrounds. Indeed, the application of GT has long since moved past its medical profession applications it was first considered for. But since 1967, GT has grown and developed into several strands and the potential divergence of its application presents increased complexities in terms of aspects like rigour and validity. Thus, this could mean it is potentially a research methodology to avoid when it comes to doctoral research, early-career research, and even working towards the career elite (or elitism) within various journal ranking guides around the world. Nuances and differences are outlined and discussed within this paper.

Over time, some scholars have added new approaches to aid GT's further development, e.g., a constructivist grounded theory research guideline (Charmaz, 2014; Charmaz & Thornberg, 2020), and a checklist of saturated concepts (Corbin & Strauss, 2015). These efforts may provide detailed information in some aspects, such as how to produce a saturated theory. Yet, this does not help clarify what GT is, and how to conduct GT (Walsh et al., 2015). The image of the 'top-tier' qualitative research method and potentially confusing perceptions of GT still act as a hinderance to novice researchers, although also come with some innovative possibilities (Walsh et al., 2015).

For GT to continue to grow and develop as a respected methodology, as well as keeping within its evolved nuances, this paper aims to draw together and discuss GT complexities with a view to building a framework that can guide a new researcher or doctoral student. The tangibility of the processes outlined in our framework present a much greater depth and clarity than previously offered within the literature. We hope this can assist new researchers and doctoral students in making well-informed and confident research choices that lead to high quality and rigorous data outputs within a GT approach. Furthermore, we want to help GT as an approach grow beyond its pre-conceived limitations,

i.e., where it is considered a weaker qualitative methodology to use opposed to those that offer more *formulaic* procedures to more easily follow. These limitations are not openly discussed in the literature (although research could further inform this discussion), but we think the framework we present can add further rigour and validity that can assist reviewers and doctoral examiners in their judgements of the research approaches adopted. In essence, our framework can offer a greater *formulaic* procedure for researchers to follow and identify with.

Thus, we must confront the confusion created by divergent approaches in GT. This is done by revisiting key literature to outline and discuss the core principles of GT in its various guises. To further expand our generated framework, we apply a live data example within leadership development (as the driving context) to further examine how this methodology could (or could not) work for a new generation of researcher, i.e., new to doctoral research or an early career researcher. We hope this paper will serve as an effective guide to researchers thinking about GT and bring together a number of important considerations within this realm.

The rest of this paper is structured into four main sections and a conclusion. First, we identify central elements and key debates within GT methodology, as well as four underpinning core principles. Subsequently, we present an evolved GT research framework designed for the next generation of researcher and those new to the methodology. Finally, we apply the presented framework to a 'live' author-led doctoral experience to show the framework in action.

GROUNDED THEORY AND DIVERGENT DEVELOPMENT

GT is generally considered to be a flexible qualitative method employed to develop theoretical patterns rooted in the relevant empirical data set. Its origins lie with Glaser and Strauss (Glaser & Strauss, 1967). As a common approach, GT studies seek to develop theoretical constructs by categorizing empirical data constructs into an integrative story under a systematic process, including theoretical sensitizing, theoretical sampling, and constant comparing. A GT analysis can begin with open-coding strategies, without basing a prescribed conceptual framework, composed of initial-coding followed by secondary-coding (Glaser & Holton, 2007). These characteristics are argued to enhance the credibility of a qualitative study (Auerbach & Silverstein, 2003), and allow the data to guide the articulation of the findings as opposed to, for example, searching for ratification of a hypothesis or proposition.

GT can be utilized within broad empirical contexts and subjects using rich and various fundamental techniques and a transparent research process. Various disciplines have employed GT because it provides scientific-style research processes (which can lead to accusations it is post-positivistic in nature), such as healthcare (Auerbach et al., 2006; Sbaraini et al., 2011; Vinckx et al., 2018), psychology (Hutchison et al., 2011), and leadership (Gibson et al., 2018; Kan & Parry, 2004; Lakshman, 2007). Thus, GT has grown in popularity and become a widely used research approach (Bryant & Charmaz, 2007).

From the methodological perspective, GT has evolved divergently and, as such, can be named differently. This includes Glaser's Classical GT (Glaser, 1992), Charmaz's Constructivist GT (Charmaz, 2014), and other approaches (Goldkuhl & Cronholm, 2010). In terms of GT research key principles, both Classical GT and Constructivist GT agree to emphasize open coding, theoretical sensitizing, constant comparison, and theoretical sampling. However, these particular approaches differ in some other dimensions, such as perspectives on the role of the literature review, pre-conceived concepts, and the researcher's values demonstrated in the procedure of theory development (Timonen et al., 2018).

For example, on the one hand, Glaser recommends that all theoretical patterns (or themes) should emerge from data through constant comparison. Whereas Glaser is strongly against researchers adding their personal thought in constructing a theory nor using pre-conceived concepts to guide data collection and data analysis (Glaser, 2002). Glaser (2002) stated that the derived theoretical patterns

from GT studies should emerge from constant comparison of data, and only emergent substantive theories can demonstrate "true grounded theory". He insists that open-coding is not based on any pre-conceived conceptual framework (Glaser, 1992). On the other hand, Charmaz initiates constructive GT to stick closely to pre-defined patterns and categories (Charmaz, 2014). Constructivists also normally start a data-analysis process within some sort of conceptual framework. Moreover, constructive-based GT studies emphasize the value of researchers in light of constructing theory. By contrast, Straussian research encompassed more structured coding procedures, e.g., open, axial, and selective coding (Corbin & Strauss, 2008). Indeed, these divergent perspectives on pre-conceived concepts, coined within the perception of how to utilise a literature review, will confuse or mislead some researchers. For instance, one study misinterpreted Glaser's perception of the literature review and argued that Glaserian were studies strongly against consulting the relevant literature in the substantive area to eliminate any prior influence (Alammar et al., 2019). However, Glaser never suggested a non-literature review in GT research; he is merely against the pre-conceived conceptual framework, which is different from an approach absent of any literature reading or understanding. For a doctoral student or new generation researcher, without gaining plenty of knowledge from literature, there will be few possibilities to build-up theoretical sensitivities, which is a critical ability when conducting GT research. Another doctoral research GT application in IT intended to give assistance to other novices (Jones & Alony, 2011). However, there was no clarification offered about how to utilise a literature review nor the application of constituting theory. To summarize, studies have yet to explicitly and clearly articulate the role of a literature review in GT research, including the three main families of GT: Glaserian, Straussian, and Constructivist GT. This is why the current study intends to clarify and demonstrate how to use a literature review in a GT study without also breaching any of the core principles.

Thus, and perhaps not well-recognized within general methodological literature, choosing to apply GT techniques comes with a variety of starting points and a degree of variation in how GT should look in practice. In other words, a researcher does not want to become trapped in discussions and arguments about what GT is, and how it should be applied. Yet, Glaser (2002) and other researchers recommend GT as an advanced doctoral theses method. For an early career researcher (ECR) conducting research and working towards the review process, this complex arena of GT can also lead to extensive (and maybe disheartening) discussions in review processes about the nature of GT and therefore how robust its application is, i.e., if the quality is considered to be lacking in the GT process, this can have a knock-on effect in terms of where such work can be published (e.g., related to journal ranking systems). This is perhaps a somewhat controversial conversation, as it is difficult to evidence, but the authors are attempting to shine a light and have an important conversation around research realities. As a result, we believe it is imperative that a new researcher is well-versed, well-positioned and robustly justified in their selection of GT.

THE CORE PRINCIPLES OF GROUNDED THEORY

By following Glaser's classical GT principles and process, the application of open-coding, constant comparison, theoretical sampling, and theoretical sensitivity are recognized as core principles. These characteristics are unique attributes of GT approaches that can differentiate GT research from other qualitative methods (Corbin & Strauss, 2008).

OPEN CODING

In a qualitative study, coding is a fundamental step in the analysis process that enables breaking down the data into meaningful parts (Creswell, 2015). Indeed, it is a common and widespread application in qualitative studies. In Glaser's classical GT research, the open-coding procedure starts with no literature-based preconceptions within the coding process and instead leads towards the development of core categories (Glaser, 1992). This is a very difficult task in itself when a researcher is arguably intertwined with the data in front of them. Yet, open-coding can identify all similar phrases and sentences

through a line-by-line or word-by-word coding process, and constantly compare the substantive phenomena in the data set. In essence, a researcher puts the pre-conceived literature to one side as they start to construct meaning from the data. Subsequently, selective coding is the process where researchers use their theoretical sensitivity to identify the essential concepts from the outputs (all the repeat ideas) of the initial stage. Both Glaser and Strauss conduct an open-coding procedure, but their second coding step is different. Glaser's classical GT two-step coding is comprised of the initial step of open-coding, and the subsequent selective coding step. By contrast, Strauss's two-step coding process is composed of open coding, and axial coding. In the axial coding step, the analyst will bring the disconnected coded data back together and delineates the relationships between concepts after yielding the core concepts (Corbin & Strauss, 2008).

Constant Comparison

Constant comparison is the analytic process that compares each piece of relevant data for similarities and differences, and then develops the concepts (Corbin & Strauss, 2008). The constant comparative analysis techniques are inductive processes that select the identified phenomena from the focused data through iteratively coding and recoding (Glaser & Strauss, 1967). This sifting and sorting data tool can stimulate grouping of conceptual properties, and finally yield emergent concepts. Glaser (2001) states that all GT studies are generating emergent concepts that are completed by constant woven comparison with many rigorous steps. O'Connor et al. (2008) stated:

> *Constant comparison assures that all data are systematically compared to all other data in the data set. This assures that all data produced will be analzsed rather than potentially disregarded on thematic grounds.* (p. 41)

Constant comparison should endorse GT studies and yield emergent concepts from the focused data set. Constant comparison has demonstrated its unique value in qualitative studies in general, as numerous researchers outside of the GT domain also utilize constant comparison techniques (Fram, 2013). Perhaps a common criticism of constant comparison is a lack of detail on the 'how'. The process may sound straightforward enough, but there is a lack of detailed instruction and guidance to know if the process is being conducted successfully. This could explain why Fram (2013) claims that around one-third of GT studies could not successfully develop substantive theory from their data process, and the problem may be caused by the lack of legitimate use of constant comparison.

Theoretical Sampling

Theoretical sampling involves choosing a relevant sample that expands the phenomenon recognized in previous research steps (Lakshman, 2007). GT analysts use theoretical sampling to develop and elaborate the emerging concepts or substantive theories with pertinent data when the previous research step does not result in promising concepts in terms of conceptual properties (Charmaz, 2014). The definition of theoretical sampling is compared to the selective sampling techniques that are normally employed to identify target populations and settings before data collection (Schatzman & Strauss, 1973). Glaser (1992) explains that grounded theorists conduct an analysis process with collaborative data collection and coding. They will decide what data to collect in the next stage to develop the emerging theory (Glaser, 1992). In other words, GT analysts can conduct theoretical sampling more than once until they are confident in the saturated emergent theory. Beyond the normal criticisms around issues of generalisation within qualitative studies, there are also the choices of, and potential limitations in, the theoretical applications used, e.g., these can be restricted by the researcher's knowledge range. This highlights that, despite attempts to restrict pre-conceived conceptualisation earlier in the data analysis process, the importance of theory and concepts eventually comes to the fore and, arguably, they are essential for a doctoral process or a journal article review process.

Theoretical Sensitivity

Thus, to address that last point above, theoretical sensitivity is the capability to understand and conceptualize phenomena into abstract terms. Glaser (1992) stated that theoretical sensitivity was the critical ability that GT researchers should equip to understand the studied data, and recognize the emergent concepts through constant comparing. Developing theoretical sensitivity will empower researchers to successfully convey the analytical process when pursuing theoretical insight (Charmaz, 2014). If researchers are weak in conceptual ability, they may not succeed in theoretical coding practices and will not successfully achieve grounded theory aims (Glaser, 1992). Therefore, theoretical sensitivity is considered as a threshold to determine whether a researcher can do GT studies or not. Fortunately, the previous studies have found evidence that theoretical sensitivity can be heightened through a course of practice: reading the literature, two-step coding, category building, and writing reflective memos (Hoare et al., 2012; Lo, 2016). This again highlights the skill of a researcher when knowing how to *detach* and then firmly *attach* at another point pre-conceived theories and concepts.

Considering all of these four principles mentioned above, theoretical sensitivity, two-step coding, constant comparison, and theoretical sampling techniques distinguish GT research from other qualitative studies. Both studies within and around GT have found that use of unique techniques are valuable to ensure research quality. But, such specific and advanced research skills are a significant challenge for new GT researchers to face within their studies, e.g., how to utilize a literature review. Thus, this paper will now consider an evolved grounded theory research framework for a doctoral student or new GT researcher.

Evolved Grounded Theory Research Framework for a New Grounded Theory Researcher

One highly unique aspect of this paper is that the discussion that follows represents a 'live' doctoral journey. We feel that sharing this 'lived experience' will heighten the relevance of the discussion as it is presented 'at the time' and not 'in hindsight'. This part of the paper is based on planned empirical research that aims to gain new insights into how psychological resilience interacts with leadership at the workplace. The research purpose is to advance the understanding, which resonates with a theoretical purposed inductive qualitative study; thus, GT is identified as pertinent to the study.

Data were collected from participants involved in a leadership development (LD) program. Forty-two leaders participated in the LD program, which involved nine in-class seminars delivered by guest speakers/leaders and seven leadership panels. All participants are familiar with leadership knowledge, skills, and challenges faced by individuals and organizations. Most of the trained leaders are middle-level leaders are from diverse organizations and positions. A guest speaker or a leadership panel hosted each LD session. During each LD session, these guest speakers shared their leadership experiences, personal stories, challenges, and responses to the challenges or disasters faced by themselves or their organizations. After each session, participants replied with their feedback about what inspired or demotivated them to build up their leadership capabilities.

The empirical study aims to reveal the encouraging factors and discouraging factors that impact LD effectiveness in this LD programme context. To achieve the research purpose, the study accomplished the whole analysis process with three cycles of data analysis sequentially: the initial data collection, and two cycles of theoretical sampling. The first cycle of analysis resulted in one theme centred around being inspired to learn by leadership experiences of others, and this is where some participants mentioned challenging experiences. Unfortunately, how the challenging experiences of others can motivate them to learn is unclear. Thus, the first theoretical sampling was conducted to collect more data followed by a two-step coding process. Within these two cycles of data collection and analysis, there was still no saturated emergent concept to explain discouraging factors. Thus, the second theoretical sampling and data analysis process was conducted. As a sub-total, the researcher collected and analysed 1,226 reflective responses to achieve the goals of the study.

The rich data set makes it possible to do GT in terms of a fairly large qualitative sample size. This sticks to the "all is data" rule, and lets the theoretical concepts and substantive theory emerge from the data analysis (Glaser, 2001). Given these reasons, the present research generally follows the core principles of Glaser's classical grounded theory.

Regarding the high level of required research skills as discussed above, some researchers are not confident in their capability to start a GT-based study (Glaser, 2001). The necessary theoretical sensitivity and the complex process will become the obstacles to a new grounded theorist. Therefore, for a doctoral student or early career researchers, conducting GT studies is challenging unless the high level of research capability can be broken down into small parts and described with a well-designed implementation process.

This paper demonstrates how a new GT researcher can conduct a GT-based study by following the evolved GT research framework delivered within the doctoral research project outlined above. This procedure strictly employs GT essential principles and combines with the author-evolved methods, including the two-step literature review, two-step opening coding, and two-step theory-constituting process. The three evolvements used in the author-designed GT framework aim to divide the research project into small parts. The broken-down process can lower the research ability threshold, and the evolved process is achievable for early career researchers. This involved a GT research framework that describes the whole GT-based research process and demonstrates how to conduct the research step-by-step in sequence (shown in Figure 1). Our framework not only outlines a roadmap to follow, but this discussion around why these processes appear (amidst the complexities of GT) allows a doctoral or new generation researcher to assist their thinking and further justify their approaches.

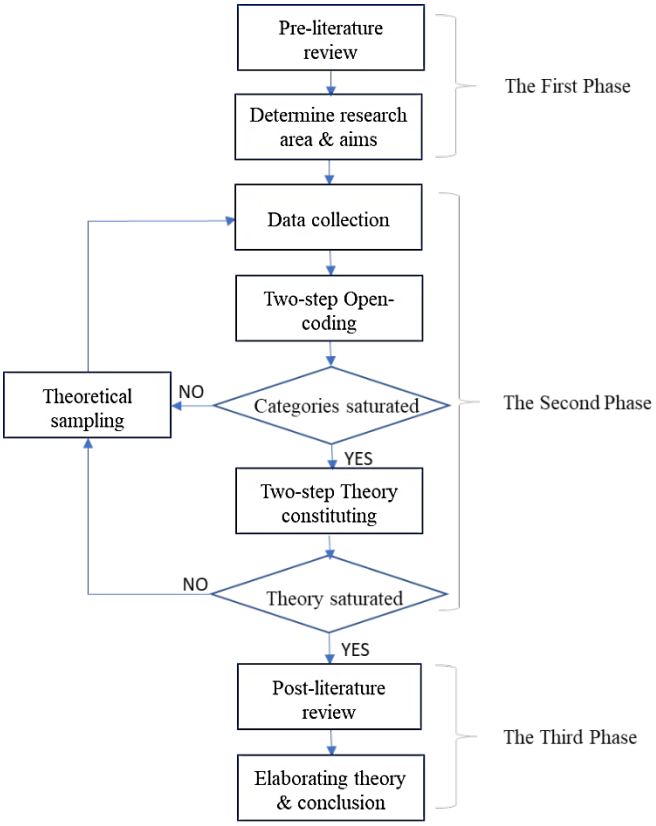

Figure 1: Three-Phase Research Framework

This author-designed framework displays the GT-based study process in three phases, which take place sequentially. The first phase includes two steps, and it starts from a broad pre-literature review and then shifts the wide-ranging research interests into more specific research aims. This phase will consider and combine multiple aspects, such as the innovative value and practical value of the research problem, as well as previous empirical evidence. Thus, there is argument by some that this process could be seen as anti-Glaserian, but we would argue it is a process more carefully aligned to his ideas and within the GT family around the use of literature and then presented within a practical framework that can be mapped and followed. We hope this clarity in the approach leads to greater confidence for researchers when organising and aligning their GT activities.

The second phase is the essential part of the GT research procedure that includes data collection, the two-step open-coding process, theoretical sampling, and the two-step theory constituting process. Theoretical sampling refers to the classical GT strategy and gathers additional data to further study the identified categories from the previous steps until the emergent concepts or theoretical concepts are saturated. The two-step open-coding process and the two-step theory constituting process are author-designed from experience within the doctoral project and can be used by other new GT analysts. Of course, how many times theoretical sampling is needed may differ and depends on the results in each data analysis process. For example, the empirical study presented earlier conducted three data collection cycles and analyses to get the saturated emergent themes.

The third phase comprises post-literature review and theory elaboration, which intend to interpret and elaborates the emergent substantive theories with extant formal theories and empirical studies. In GT studies, the definition of the concept (theme) refers to sensitizing concepts. Compared to definitive concepts illustrated with clear attributes or fixed benchmarks, a sensitizing concept lacks precise attributes or measuring criteria (Blumer, 1954). The sensitizing concepts emerge from the data analysis, and it can give researchers a general sense and guide in approaching substantive theories. Subsequently, the post-literature review is to build theoretical relationships between emergent substantive theories and extant formal theory. The association between an existing theory with the grounded theoretical pattern may either expand the formal theory into a new domain or reinforce the GT study's findings. Glaser (2002) states that research originality or creativity does not have to find new theories since most of them are already known in some way. Extending existed theories and knowledge to yet unknown territory can constitute prominent discovery (Glaser, 1992). Therefore, conducting a post-literature review and establishing relationships between substantive theories and previous studies can enhance GT finding's credibility. Unfortunately, GT studies can receive criticism for missing parts of the GT process like this one. Thus, the framework developed also acts as a constant reminder to fulfil every aspect of the GT process.

Here in this paper, the emergent concept is defined as a general sense or substantive theory and does not need an accurate definition and/or fixed criteria (Glaser & Strauss, 1967). By contrast, this is deferred to the definitive formal theory and concept that refers precisely to a clear definition of attributions or fixed criteria. The substantive theory refers to the definition of constituting emergent sensitizing concepts or themes with theoretical relationships (Blumer, 1954). Glaser and Strauss (1967) clarified that levels of generality would distinguish substantive and formal theories. Substantive theory grounded from the investigated context and it is faithful in the specific empirical situation, e.g., such as the emergent vicarious learning model from the empirical study presented in this paper.

Given both GT's core principles and execution possibilities for new GT analysts, this author-designed GT framework implies evolvements in three aspects: the two-step literature review, two-step open-coding, and the two-step theory-constituting method.

Two-Step Literature Review Method

Along with GT's divergent development, scholars view the construction and application of a literature review differently. Glaser (1992) strongly disagrees with conducting a literature review before the

emergent theory because he believes that pre-conceived knowledge from the literature will constrain grounded theory analysts. He believes pre-conceived concepts will limit concepts emerging from the investigated data set and recommends a reserve literature review after GT appears, i.e., post data collection (Glaser, 2001). On the contrary, other grounded theorists advocate conducting a literature review before data collection and analysis, instead intending to gain relevant knowledge about the target research problems or conceive substantive concepts to study (Charmaz, 2014). Similar to Charmaz, Corbin and Strauss (2008) recommend reviewing the literature in advance to achieve several targets: (1) gain knowledge in the focused research area (2) stimulate research questions (3) stimulate theoretical sensitivity (4) direct theoretical sampling, and (5) provide supplementary evidence and validity. As might be expected, such varied perspectives on literature reviews are likely to cause confusion for new GT researchers. This then feeds into discussions around research tradition. For example, it is often expected within a thesis or journal article that a literature review precedes a methodology followed by findings and discussion. Some forms of GT actively clash with such traditions which may also hinder the potential application of related practices.

There is a GT study that has discussed the controversial opinions for or against the initial literature review (named the literature review before data collection). McGhee et al. (2007) explained that an exploratory literature review is needed to satisfy the researchers and other readers prior to the final decision on the research focus and specific method of the study in the evidence-based research era. Considering McGhee et al.'s (2007) advocation of an initial literature review, the critical idea is to review literature properly. The existing literature is to equip researchers with pre-knowledge, and prepare them to conduct GT studies. Researchers are not necessarily against reviewing literature with empty brains to step into a research focus. Other researchers support this view. Coffey and Atkinson (1996) argue:

> *The open-mindedness of the researcher should not be mistaken for the empty mindedness of the researcher who is not adequately steeped in the research traditions of a discipline. It is after all, not very clever to rediscover the wheel, and the student or researcher who is ignorant of the relevant literature is always in danger of doing the equivalent.* (p. 157)

Giles et al. (2013, p. 29) maintain that despite the ongoing debate on the literature review, "a preliminary review can enhance theoretical sensitivity and rigor and may lead to innovative insights. However, researchers must acknowledge the influence of prior knowledge during data analysis and theory development to avoid bias".

Thus far, a growing body of literature has reported sound advantages of the initial literature review even though Glaser strongly disagrees with conducting a review of literature before data collection. However, the GT family is still lacking clarification about how to manipulate existing literature and diminish the bias simultaneously. Hence, the authors have proposed the two-step literature review method with explicit process and purpose (as presented in Figure 1). The two-step literature review consists of the pre-literature review (interchangeable with the name of the initial literature review), and the post-literature review. The pre-literature review takes place before data collection and data analysis. It aims to gain knowledge and enhance theoretical sensitivity rather than yield a theoretical framework to guide the data analysis process. By contrast, the post-literature review is after substantive theories have emerged and aims to build a relationship between the emergent theory and extant formal theories, and empirical studies.

By following the Two-step Literature Review Process, the pre-literature review will enable researchers to gain knowledge from previous studies, clarify research topics, and subsequently enhance confidence to conduct GT studies. By contrast, post-literature may result differently, such as finding evidence that will support or challenge the present study. The post-literature review may generate more supporting evidence to enhance the emergent findings or find existing studies that are inconsistent and require exploration of the underpinning inconsistencies. Moreover, the post-literature may find a

relationship between the emergent substantive theory and existing formal theories. They will extend the formal theory to new dimensions or develop the emergent substantive concepts to a theory.

Despite clashes with Glaser's original ideas around literature, the author-designed two-step literature review does not breach the core principle within GT research. In contrast, the explicit two-step procedure can assist researchers in the application of their GT approaches within a methodological realm that contains various complexities and contradictions in potential approaches. Here, the two-step literature review method is the first time explicitly articulating the purpose and process of a literature review in (albeit Glaserian-based) GT research. Our approach helps to bridge gaps and potential dichotomies to hopefully lead to a more robust and accepted application of GT.

Two-Step Open-Coding Method

Coding is common in qualitative research, whether inside or outside of the GT family (Creswell, 2015). The open coding method is distinguished in GT studies to ensure the substantive concepts can emerge from the investigated dataset. Along with the broad utilization of GT strategies in the past decades, the coding techniques have evolved divergently. Glaser (1992) emphasizes that open-coding is critical, but he does not limit the conduction method:

> *To achieve a grounded theory, the analysis cannot code for pre-conceived theoretical codes. He must code for whatever category emerges on whatever unit in the data, and theoretical sensitivity applies to whatever theoretical code fits.* (p. 48)

Glaser's classic GT does not specify a specific coding process (i.e., either conducting a one-step or two-step coding process); he just emphasizes open-coding in combination with the constant comparison technique. However, he does explain that selective coding follows open coding (1992):

> *For grounded theory, selective coding starts after and only when the analyst is sure that she has found a core variable. The core category simply emerges from the constant comparative coding and analzsing the data. The core variable then becomes a guide to further data collection and theoretical sampling.* (p. 75)

By following Glaser's open coding method, researchers will depend strongly on their theoretical sensitivity to pick out the core categories from the broad emergent variables. For novice GT researchers, successfully traversing this open-coding process without a specific process is a considerable challenge.

Unlike Glaser, Strauss (the other co-founder of GT methodology) went on to develop the axial coding method for GT studies (Strauss, 1987). Axial coding is the procedure whereby GT researchers put back the emergent concepts from the open coding, step back into data, and make connections between them by involving context and conditions (Strauss, 1987). In light of the coding purpose, axial coding objectives are similar to theoretical coding to identify the concepts associated with emergent themes instead of grounding core concepts.

By contrast, Charmaz (2014) shared her open ideas about axial coding and the theoretical coding method. She just emphasized open coding initially, and neither advocated nor discouraged any other types of coding method after the initial coding step. Bryant and Charmaz (2019) argued that GT research was a big and turbulent family of methods with various interpretations and modifications. Indeed, some of these approaches were conflicted regarding the validity, authenticity, and varying views of key features. Their comments on coding show that the GT family lacks an explicit and stable GT coding process.

Given all these three styles of the coding process mentioned so far, the intention of this paper was to develop a more explicit and stable GT coding method. Thus, the author-designed two-step coding process combines initial coding and secondary coding. The initial coding step refers to Glaser's comments on open-coding, and starts line-by-line initial coding. As a result, the first step of the coding process breaks down the data into meaningful parts for a qualitative study. The initial-coding was to identify all ideas related to leadership in response to LD challenges, and how effective leaders are in

leading through such challenges. The line-by-line coding results drew out all of the relevant ideas. After that, the secondary-coding process constantly compared all these ideas until the themes emerged. The result of the two-step open coding process was a broad emergent theme list that were inputted for the subsequent step.

Two-Step Theory-Constituting Method

There are two types of codes in grounded theory, namely substantive codes and theoretical codes. Substantive codes are identified with general meaning in the specific substantive context and they are not necessarily precisely meaningful in other contexts. Thus, theoretical concepts (codes) normally delineate theoretical relationships between the substantive concepts (Glaser, 1992). This paper refers to Glaser's definition of codes, and named themes interchangeably in the GT data analysis context. The Two-step Theory-constituting Method is as follows: identify central themes in the first step, and identify theoretical themes sequentially in the second step.

The first step is to select and choose the core themes from the list of emergent concepts, and we apply the principles from Corbin and Strauss (2008): (1) abstract; (2) appear frequently in the data; (3) logical and consistent with the data; and, (4) related to each of the other categories. As an example here, our study focused on disclosing characteristics that impact the effectiveness of an LD program. The emergent themes constitute a broad list, including leaders' personalities (e.g., ambition, empathy, hardness, humble, etc.), and challenging experiences shared by speakers. By following Corbin and Strauss' principle, challenging leadership experience is defined as a central theme as it is the most frequent theme that emerges from the training program, and it is closely related to other emergent themes.

After choosing the central themes, the next step is to find theoretical themes (codes) to build up the relationship between central themes, and consequently constitute the substantive theory. Achieving theoretical integration is not easy for doctoral students or new GT researchers, just as Corbin and Strauss (2008) stress:

> *Concepts alone do not make theory. Concepts must be linked and filled in with detail to construct theory out of data. Admittedly, integration is not easy for novice researchers.* (p. 103)

In general, there are two different approaches to complete theoretical integration presented by Strauss and Glasser, namely selective coding and theoretical coding. Strauss (1987) introduced the selective coding method pertaining specifically to his own ideology:

> *Selective coding pertains to coding systematically and concertedly for the core category. The other codes become subservient to the key code under focus. To code selectively, then, means that the analyst delimits coding to only those that relate to the core codes in sufficiently significant ways as to be used in parsimonious theory.* (p. 33)

By contrast, Charmaz and Glaser emphasized the theoretical coding method in integrating theory (Bryant & Charmaz, 2019). By considering the previous methods to constitute the substantive theory, we present the two-step theory method that includes the selection of central concepts, and theoretical concepts from the emergent themes list. On the one hand, this method refers to the GT's rule: all concepts emerge from data instead of forcing data. On the other hand, the two explicit steps can break down a complex task into small pieces that will help new GT researchers accomplish the challenging task of theoretical integration.

Applying the Evolved GT Framework in Practice

Glaser and Strauss (1967) founded GT decades ago and have demonstrated that the GT-based data collection and analysis procedure is a flexible qualitative method. This authored-designed GT framework displays an explicit process for new GT researchers to develop theories flexibly and constructively. This paper illustrates how this flexible framework was utilised to conduct doctoral research by

exploring the approach adopted, particularly through explaining the process of theoretical sampling and the literature review.

Three Circles of Data Collection and Analysis

One empirical aspect of the doctoral research example, focusing on effective LD, intended to reveal the characters which impact LD effectiveness in a LD programme context. Furthermore, the study was to advance understanding of how and why these factors influence participants to build up their leadership capabilities. To achieve the research purpose, this empirical study completed the whole analysis process in three cycles of data analysis, sequentially. Here, one cycle means one phase of data collection and data analysis. This LD focused study involved an initial data collection and followed by two cycles of theoretical sampling; thus, three cycles in total. The initial data collection and two cycles of theoretical sampling resulted in 1,226 reflective answers collected from 42 participants involved in an LD training programme. The first cycle of analysis resulted in two broad themes: (1) Inspired to learn by others' leadership experiences, and (2) Build-up leadership capabilities.

Moreover, some participants reflected that the challenging experiences of others inspired them. Unfortunately, there were not enough pieces of evidence emerging from the initial data to saturate the concept of how the challenging experiences of others motivated them to develop leadership skills. Within the theoretical sampling from the first and second circles of data collection and analysis, the central themes emerge as challenging experiences that can strongly impact the effectiveness of the LD programme. However, there is still no saturated concept to explain what characteristics of the LD programme will negatively impact LD effectiveness. Thus, the second theoretical sampling and data analysis occurs and finds that 'no sharing of personal experience' may diminish the LD effectiveness in causing a low level of participant engagement.

Using the Literature Review Wisely

During the pre-literature review associated with the topic of effective leading, the researcher was excited by a positive psychological theory that is Broaden and Build Theory (B&B). Fredrickson (2001) developed this theory and she found that positive emotions can broaden individuals' attention scope and thought-action repertoires. The extant studies found that positive emotions can impact leadership effectiveness in terms of performance, employee engagement, and well-being (Fredrickson & Joiner, 2018; Lin et al., 2016; Meneghel et al., 2016). Therefore, the authors believe there is a relationship between B&B theory and resilience; subsequently, B&B can be utilized in LD studies.

When doing data collection and data analysis, the authors applied the Evolved Grounded Theory Framework instead of guiding the analysis process with the B&B theory as a pre-conceived concept. At that time, the researcher believed that the B&B theory will emerge from the data. However, there are no themes relevant to positive emotions emerging from the data analysis at all. The researcher was disappointed and had to put B&B aside to wait for the next empirical study.

After that, the researcher was still willing to use B&B theory in the second empirical study, and wanted to find a relationship between B&B theory and leadership resilience. However, when doing the post-literature review to interpret the emergent substantive theory about how Leadership Resilience Demonstrates in Actions, the researcher could not find emergent themes about positive emotions. In other words, there was a failure in finding a relationship between B&B theory and leadership resilience (at least, not yet). Thus, with this in mind, it is perhaps pertinent to express that GT based studies should employ the literature review wisely and cautiously. Otherwise, a pre-conceptual framework may mislead the data analysis and yield different results. To summarize, when facing the dilemma of pre-conceived knowledge and non-preconceived coding concepts, reflect on the GT core principle and use the pre-literature process to improve theoretical sensitivity and analytical ability. Do not let the pre-conceived concepts misguide the research strategy. Fortunately, the explicit Evolved Grounded Theory Research Framework can help other researchers conduct GT studies step-by-step

whilst maintaining the composure of its principles and processes. Researchers can innovatively and flexibly use a literature review with clarified purpose, just like the author-initiated two-step literature review. It is hoped a more transparent research procedure can improve research quality overall for GT studies.

CONCLUSION

This paper makes a number of contributions. 1. We discuss some of the unique tensions and differences within GT approaches with a view to overcoming them. 2. We offer a systematic framework that a doctoral student or new researcher could follow when attempting to traverse the complexities of GT. 3. We overlay this new framework within a live doctoral research project to further bring to life the process outlined. 4. We offer attempts to further legitimize and validate GT approaches through a formulaic process that hopefully helps potential journal article reviewers and doctoral examiners within their judgements of the GT research approach adopted.

We first discussed an overview of key GT approaches and debates, and found that GT has developed divergently and the somewhat controversial conversations make it difficult for new generation researchers to conduct a GT-based study. In order to break down a complex GT procedure into smaller parts, this paper offered three evolvements: the two-step literature review method, two-step open-coding method, and two-step theory constitute method. By integration of Glaser's four core principles and the three evolvements, this paper presented an author-designed three phases research platform. The breakdown analysis techniques and step-by-step framework provide key guidance, confidence, and rigour within a GT approach, which will encourage and assist other new generation researchers in conducting GT research in their substantive area. Furthermore, the live-author-led research experience within grounded theory may inspire further technical development and enrich the grounded theory family.

The unique framework captures and gathers distinctions within GT whilst maintaining flexibility, depth, and rigour within a study. In particular, the first identified two-step literature review may address some misunderstanding of literature and provide an innovative application in GT. The result might change some of the stereotype bias of GT and allow other researchers, doctoral students, and new GT researchers to conduct GT research innovatively, and subsequently extend GT applications.

Indeed, GT could be a valuable approach during a time of COVID-19 as we seek flexible methodologies for our studies. Yet, maintaining that depth and rigour will also be crucial within this application and the framework can assist researchers in that way. The three evolved analytic methods and author-designed three-phases framework are developed within a LD project with a rich data set (more than one thousand open-ended answers). Whilst on the one hand, this offers a practical application, it also on the other hand highlights a limitation because of its fixed context. Thus, there are still connections to be made by a researcher in terms of applying GT conventions appropriately to their own research project.

Of course, there are limitations around what we discuss. The framework presented needs to be tested beyond the context here to demonstrate its value for doctoral students and new generation researchers. Other researchers can hopefully build on this framework and provide further advancements around the complexities discussed. We welcome such developments and see this as a necessary part of keeping GT contemporary and relevant within research in general. In addition, there could also be a lot more to discuss and explore from a philosophical perspective. We have, in the main, remained centred around the complexities within the procedures and processes of GT, but other researchers could develop philosophical and methodological perspectives as there are potential discussions worth revisiting, e.g., 'how is knowledge developed?', and so on.

REFERENCES

Alammar, M. F., Intezari, A., Cardow, A., & Pauleen, D. J. (2019). Grounded theory in practice: Novice researchers' choice between Straussian and Glaserian. *Journal of Management Inquiry*, *28*(2), 228-245. https://doi.org/10.1177/1056492618770743

Auerbach, C. F., Salick, E., & Fine, J. (2006). Using grounded theory to develop treatment strategies for multicontextual trauma. *Professional Psychology: Research and Practice*, *37*(4), 367-373. https://doi.org/10.1037/0735-7028.37.4.367

Auerbach, C. F., & Silverstein, L. B. (2003). *Qualitative data: An introduction to coding and analysis*. New York University Press. https://psycnet.apa.org/record/2003-88052-000

Blumer, H. (1954). What is wrong with social theory? *American Sociological Review*, *19*(1), 3-10. https://doi.org/10.2307/2088165

Bryant, A., & Charmaz, K. (2007). *The SAGE handbook of grounded theory*. SAGE Publications. https://doi.org/10.4135/9781848607941

Bryant, A., & Charmaz, K., (Eds.) (2019). *The SAGE handbook of current developments in grounded theory*. SAGE Publications. https://doi.org/10.4135/9781526485656

Charmaz, K. (2014). *Constructing grounded theory* (2nd ed.). SAGE Publications. https://us.sagepub.com/en-us/nam/constructing-grounded-theory/book235960

Charmaz, K., & Thornberg, R. (2020). The pursuit of quality in grounded theory. *Qualitative Research in Psychology*, *Pre-print*. https://doi.org/10.1080/14780887.2020.1780357

Coffey, A., & Atkinson, P. (1996). *Making sense of qualitative data: Complementary research strategies*. Sage Publications.

Corbin, J. M., & Strauss, A. L. (2008). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (3rd ed.). SAGE Publications. https://doi.org/10.4135/9781452230153

Corbin, J. M., & Strauss, A. L. (2015). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (4th ed.). SAGE Publications. https://us.sagepub.com/en-us/nam/basics-of-qualitative-research/book235578

Creswell, J. W. (2015). *30 essential skills for the qualitative researcher*. SAGE Publications. https://us.sagepub.com/en-us/nam/30-essential-skills-for-the-qualitative-researcher/book237360

Fram, S. M. (2013). The constant comparative analysis method outside of grounded theory. *The Qualitative Report*, *18*(1), 1-25. https://files.eric.ed.gov/fulltext/EJ1004995.pdf

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology. The broaden-and-build theory of positive emotions. *The American Psychologist, 56*(3), 218-226. https://doi.org/10.1037//0003-066X.56.3.218

Fredrickson, B. L., & Joiner, T. (2018). Reflections on positive emotions and upward spirals. *Perspectives on Psychological Science*, *13*(2), 194-199. https://doi.org/10.1177/1745691617692106

Giles, T., King, L., & de Lacey, S. (2013). The timing of the literature review in grounded theory research: An open mind versus an empty head. *Advances in Nursing Science, 36*(2), E29-E40. https://doi.org/10.1097/ANS.0b013e3182902035

Gibson, D. M., Dollarhide, C. T., Moss, J. M., Aras, Y., & Mitchell, T. (2018). Examining leadership with American Counselling Association presidents: A grounded theory of leadership identity development. *Journal of Counselling & Development*, *96*(4), 361-371. https://doi.org/10.1002/jcad.12219

Glaser, B. G. (1992). *Basics of grounded theory analysis*. Sociology Press.

Glaser, B. G. (2001). *The grounded theory perspective: Conceptualization contrasted with description*. Sociology Press.

Glaser, B. G. (2002). Constructivist grounded theory? *Forum: Qualitative Social Research* [*Sozialforschung*], *3*(3), Article 12. https://doi.org/10.17169/fqs-3.3.825

Glaser, B. G., & Holton, J. (2007). Remodelling grounded theory. *Historische Sozialforschung* [*Historical Social Research*], *Supplement*-(19), 47-68. https://www.jstor.org/stable/40981068

Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Aldine Publishing Company.

Goldkuhl, G., & Cronholm, S. (2010). Adding theoretical grounding to grounded theory: Toward multi-grounded theory. *International Journal of Qualitative Methods*, *9*(2), 187-205. https://doi.org/10.1177/160940691000900205

Hoare, K. J., Mills, J., & Francis, K. (2012). Dancing with data: An example of acquiring theoretical sensitivity in a grounded theory study. *International Journal of Nursing Practice*, *18*(3), 240-245. https://doi.org/10.1111/j.1440-172X.2012.02038.x

Hutchison, A. J., Johnston, L., & Breckon, J. (2011). Grounded theory-based research within exercise psychology: A critical review. *Qualitative Research in Psychology*, *8*(3), 247-272. https://doi.org/10.1080/14780880903304527

Jones, M., & Alony, I. (2011). Guiding the use of grounded theory in doctoral studies – An example from the Australian film industry. *International Journal of Doctoral Studies*, *6*, 95-114. https://doi.org/10.28945/1429

Kan, M. M., & Parry, K. W. (2004). Identifying paradox: A grounded theory of leadership in overcoming resistance to change. *The Leadership Quarterly*, *15*(4), 467-491. https://doi.org/10.1016/j.leaqua.2004.05.003

Lakshman, C. (2007). Organizational knowledge leadership: A grounded theory approach. *Leadership & Organization Development Journal*, *28*(1), 51-75. https://doi.org/10.1108/01437730710718245

Lin, C. C., Kao, Y. T., Chen, Y. L., & Lu, S. C. (2016). Fostering change-oriented behaviors: A broaden-and-build model. *Journal of Business and Psychology*, *31*(3), 399-414. https://doi.org/10.1007/s10869-015-9417-6

Lo, C. O. (2016). Literature integration: An illustration of theoretical sensitivity in grounded theory studies. *The Humanistic Psychologist*, *44*(2), 177-189. https://doi.org/10.1037/hum0000029

McGhee, G., Marland, G. R., & Atkinson, J. (2007). Grounded theory research: Literature reviewing and reflexivity. *Journal of Advanced Nursing, 60*(3), 334-342. https://doi.org/10.1111/j.1365-2648.2007.04436.x

Meneghel, I., Salanova, M., & Martínez, I. M. (2016). Feeling good makes us stronger: How team resilience mediates the effect of positive emotions on team performance. *Journal of Happiness Studies: An Interdisciplinary Forum on Subjective Well-Being*, *17*(1), 239-255. https://doi.org/10.1007/s10902-014-9592-6

O'Connor, M. K., Netting, F. E., & Thomas, M. L. (2008). Grounded theory: Managing the challenge for those facing institutional review board oversight. *Qualitative Inquiry, 14*(1), 28-45. https://doi.org/10.1177/1077800407308907

Sbaraini, A., Carter, S. M., Evans, R., & Blinkhorn, A. (2011). How to do a grounded theory study: A worked example of a study of dental practices. *BMC Medical Research Methodology*, *11*(1), 128-137. https://doi.org/10.1186/1471-2288-11-128

Schatzman, L., & Strauss, A. L. (1973). *Field research: Strategies for a natural sociology*. Prentice-Hall.

Strauss, A. L. (1987). *Qualitative analysis for social scientists*. Cambridge University Press. https://doi.org/10.1017/CBO9780511557842

Timonen, V., Foley, G., & Conlon, C. (2018). Challenges when using grounded theory: A pragmatic introduction to doing GT research. *International Journal of Qualitative Methods*, *17*(1), Online. https://doi.org/10.1177/1609406918758086

Vinckx, M. A., Bossuyt, I., & de Casterlé, B. D. (2018). Understanding the complexity of working under time pressure in oncology nursing: A grounded theory study. *International Journal of Nursing Studies*, *87*, 60-68. https://doi.org/10.1016/j.ijnurstu.2018.07.010

Walsh, I., Holton, J. A., Bailyn, L., Fernandez, W., Levina, N., & Glaser, B. (2015). What grounded theory is…a critically reflective conversation among scholars. *Organizational Research Methods*, *18*(4), 581-599. https://doi.org/10.1177/1094428114565028

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