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Grounded theory and reflection: Reflecting about online teaching

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This paper tells the story of how I came to use constructivist grounded theory (CGT) as a method to facilitate my own reflection. As an online teacher, the speed at which things happen, the constant turnover and sheer number of decisions made across courses meant that most of my decisions were the result of reflection-in-action rather than reflection-on-action. Whilst existing reflective models provided some insight, for me what they were lacking was a robust, established, research-oriented framework, and an overall outcome I could conceptualise, share and communicate. After telling the story of how I came to use CGT, I provide a brief overview of the various process in CGT, a brief rationale for how these link to, or enable reflection, how they were used, and my thoughts on the overall process. The paper concludes with some final thoughts and actions for moving forward.

Keywords: reflection, constructivist grounded theory, online teaching, qualitative

Introduction

Ironically, the genesis of this paper began with my desire to reflect. the previous three years I had settled in and adjusted quite well, gaining positive feedback from students about my teaching and courses. Indeed, in my annual PDM (professional development meeting), my line supervisor was complementary. However, when asked, 'what is it you do across your courses? I paused, tried to come up with an intellectual, even insightful, response. However, all that I blurted out was 'I don't know. I just did it'. As the conversation progressed it became clear to me that if I wanted to communicate what I had done, I might need to figure that out. So I began on a journey of reflection. Oddly enough, reflective practice was a core component of numerous courses I taught. As I sat and pondered my answer to that question ('what is it you do across your courses?'), I was reminded of the adage, "those who can't do, teach". Determined not to let that be me, I considered various models of reflection. Whilst I could see aspects of what I had done, and parts of what I was trying to do, the nature of online learning meant that, not only was there a lot to consider, but the speed at which this had happened meant there was a lot to reflect upon. I was now faced with two dilemmas, not only did I not know how to communicate what I had I had done, models of reflection I had consulted were also insufficient to assist me. So, I was stuck and in need of a solution. As a qualitative researcher, the need for generalisation is not a typical research outcome for me, so I faced the dilemma of, 'how do I generalise my own behaviour'? I can't say when the idea of grounded theory (GT) came to me and, given this is a reflective piece, I wish I could. All I knew was that I needed something that would take my previous teaching decisions, good or bad, and bundle them up in a manner I could communicate. To me GT provided this framework.

Being open to good and bad decisions was important. I guess that is one thing I really took from teaching reflection – you don't learn if you're not honest (or at least aware). The speed, and continuation, at which online learning takes place had meant that numerous decisions had been made "on the fly". A process of reflection-*in*-action (the subconscious process where people think and theorise about their practice whilst actively engaged in the practice) rather than reflection-*on*-action (the conscious exploration of our experience and thoughts post-practice to uncover knowledge) (Schön, 1983). So, I pursued exactly what I had in my head - combining reflection with GT. The outcome was surprisingly positive (two frameworks I could pick up and generalise) and off I went to share my findings with a colleague. They were, thankfully, mostly positive. They did comment, however, that whilst the grounded theory element read well, they were less convinced about the reflection component. And so initially I left thinking I could make this a purely GT study, ignoring any reflection component. I did initially try to remove the reflection component, even to the point of saying to my now co-author, 'here, it's done'. Reading, it, I can't remember their exact words, but they said something akin

to, 'so what?', 'where did this come from?'. Despite the protests in my mind, my head went straight to thinking, 'I'll just google grounded theory and reflection. Surely there will be literature that will support my approach'. Great thought. Seems there was none. Hmmm… well now what?

Part of me was frustrated but another part was excited to communicate something new. What I did know was that I had to write a method that was larger than the current paper had space for. And so, I spilt the method and the findings into two different papers. Definitely a challenge, and a challenge I'm still working though. At this stage, my journey had led me to proposing GT, or more specifically constructivist grounded theory (CGT), as a method/methodology to help facilitate reflection. Although the capacity to engage in reflection for an academic in higher education is presumed to facilitate the educator developing and progressing, there often exists a problematic relationship between reflection and action (Mälkki & Lindblom-Ylänne, 2012). While some educators may find reflection-on-action to be a natural part of their practice, others may have trouble engaging in it meaningfully. Whilst numerous models of reflection offer ways through which to engage with the process of reflection (e.g., Kolb, 1984; Gibbs, 1988), they are pedagogically oriented rather than research oriented. For me, if I wanted to be able to simplify and replicate what I had done, what I needed was a robust, established, research-oriented frame that provided a guide to generate and replicate practice to action. What drew me to GT was that it embraces an inductive approach with the goal of conceptualisation (Glaser & Strauss, 2017). What drew me to CGT was that constructivism is itself a learning theory which holds that knowledge is best gained through a process of reflection on experiences and active construction in the mind (Mascolo & Fischer, 2005). This paper addresses the problematic relationship that exists between reflection and action, in a way that develops outcomes that are communicable and transferable.

So that is my journey to date. Although it is autoethnographic in nature, what I hope to achieve with the rest of this paper, is to give an overview of GT/CGT, and highlight how, for teaching academics, these methods can provide a robust structure and guiding framework that can help us to reflect more effectively on (and in) our practice. In this next section I provide a brief overview of the various process in CGT. I also provide a rationale for how these link to, or enable reflection, how they were used in my study and my thoughts on this process.

CGT process: Open beginning and research question

GT generally starts with a set of experiences the researcher wishes to explore (Charmaz, 1990). For a reflective study, this set of experiences are the researcher's own. As argued by Bolton (2009, p. 8), "knowing what to reflect upon … is not a clear process. The more it is focused upon, the more the truly important issues become elusive". For me, I found that GT's lack of pre-conceived notions or hypotheses provided freedom whilst also helping to remove concern about where to start the reflective process. In my own reflection I began by asking myself questions such as 'What is good about my teaching?', 'What has worked and what hasn't?', "'What have I done and what have I learned?'.

CGT process: Memo writing

Writing memos provides an individual with a tool for maintaining and engaging with their thinking and actions across the CGT process (Charmaz, 1990; Birks & Mills, 2015). Memos are essential in CGT and serve as "written records of a researcher's thinking during the process of undertaking a grounded theory study" (Birks & Mills, 2015, p. 11). By writing memos we engage in a process that builds knowledge, assists analysis, and helps inform findings (Birks & Mills, 2015). As noted by Birks and Mills (2015; cited by Tie, et al., 2019, p. 4), memo writing embraces reflection: "memos are reflective interpretive pieces that build a historic audit trail to document ideas, events and the thought processes inherent in the research process and developing thinking of the analyst". I wrote extensive memos across the process. These varied in length, relevance and coherence. Some were forward looking, others backward looking. My tips for this process are just write. Don't throw them away, don't think, 'oh I'll remember that'. Just write. If I was to do it again, I would try and have a dedicated book (I ended up with memos in numerous places), ensure all have a date and time (trying to order them afterwards is not a fun process), and I might even embrace audio memos. Thoughts can come at any time!

CGT process: Initial purposive sampling

An essential characteristic of GT is concurrent data generation – the researcher collects data from a purposive sample and code it before more data is collected or generated (Birks & Mills, 2015, p. 11). Engaging in reflection can include feeling of helplessness, frustration, burnout (Gray, 2007) and uncertainty (Trelfa, 2005, p. 206). I found that a purposive sample helped provide the impetus and starting point for personal reflection, allowing the reflective process to commence without feeling overwhelmed. For my study, I chose the course evaluation reports of courses (2021-2024) as my initial purposive sample. These reports provided a lot of data (e.g., grades summaries, student evaluations) but in a concise way. However, the initial purposive sample may come from multiple places. A teaching academic may wish to focus on a single course, or even a single piece of assessment. It is about selecting an initial purposive sample that is relevant to your own open beginning and research question – in other words, the question or experience you wish to target or examine.

CGT process: Data analysis, coding

In CGT, the coding process begins immediately - rather than waiting until all data is collected (Birks & Mills, 2015). Coding is a fluid framework, with "at least two stages"; initial/open coding and refocused coding (Charmaz, 2008, p. 159). Initial coding involves the researcher "naming each word, line or segment of data" (Charmaz, 2006, p. 46). The codes and categories generated help to "begin to take the data apart and frame analytic questions about it" (Charmaz, 1990, p. 1167). Coding line-by-line was invaluable to my own reflection. It assisted in not solely seeking out the positive - what I had done well or made me feel good but simply what was there (positive or negative). During this process I also utilised memo writing to record how I felt about something and reflections on my experiences. As such, I had codes that came directly from the data (e.g., confusion about assessment tasks; instructions unclear; liked interactive activities; feedback score above/below established metrics) as well as from my own thinking (e.g., disappointed with that feedback score; remember that and so glad I got rid of it). The beauty of both CGT and reflection is they both encourage and prompt you to ask a lot of questions. As such, at this stage I began to ask myself: "what drove this change?" and "what data do I need to investigate this?". Asking these types of questions generated via the initial purposive sample led further theoretical sampling. This is revisited later in the paper.

CGT process: Constant comparison

Part of concurrent data collection, CGT employs constant comparison (Birks & Mills, 2015). Constant comparison means that the researcher continuously compares "incident to incident, incident to codes, codes to codes, codes to categories, and categories to categories" (Birks & Mills, 2015, p. 11). Constant comparison shares notable similarities with reflection, particularly in their iterative nature; the continuous re-examination of data or experiences. Each approach contributes to the development of insight - constant comparison through the formulation of categories and the generation of theory, and reflection through the cultivation of personal understanding and awareness. An example from my experience was employing constant comparison to examine student feedback over time. Initially, early iterations of a course revealed a lack of positive feedback. By comparing this with feedback from more recent iterations - with more favourable evaluations - I was able to identify and reflect on changes made during this time.

CGT process: Theoretical sampling

"To sample theoretically, the researcher makes a strategic decision about what or who will provide the most information-rich source of data to meet their analytical needs" (Birks & Mills, 2015, p. 11). In CGT, the initial, or purposive sample, is where the researcher begins, whilst "theoretical sampling directs you where to go" (Charmaz, 2006, p. 100). For me, theoretical sampling prompted me to ask questions and thus not only reflect on what had occurred, but where I might need to go next for more data. For example, asking myself questions such as 'what drove/resulted in this change?' led me to reflect on conversations with teaching staff about assignment questions being scattered across the course. Then when considering what data I needed to investigate this, I was able to use data analytics to investigate the number of forums used and also the number of posts made in these forums. I could then continue to ask myself questions such as, 'were changes stable or did they change again?', 'who benefited from this change?' and 'did this change impact any other areas of

course delivery?'. In CGT, "analysis and data collection proceed simultaneously, a researcher can follow up on ideas as he or she creates them" (Charmaz, 1990, p. 1168). That both data collection and analysis in CGT and the process of reflection are cyclical in nature and that we learn and build iteratively, provided flexibility regarding when and where to gather data and numerous opportunities to engage in further reflection.

CGT process: Abductive reasoning

In CGT, abduction "involves considering all conceivable theoretical ideas broadly, including those the researcher may create, to account for a puzzling or intriguing finding" (Charmaz, 2021, p. 173). Maintaining an open view of emerging themes enhances creativity (Kenny & Fourie, 2015, p. 1285), and thus, abductive reasoning. Similarly in reflection, a "creative leap is required to support widening and deepening of perspective, and the effective ability to mix tacit knowledge with evidence based or explicit knowledge" (Bolton, 2009, p. 17). Abductive reasoning featured prominently as I moved through the coding process as well as when engaging in theoretical sensitivity.

CGT process: Selective or re-focused coding

In CGT, initial coding is the basis of further analytical work. Codes that reoccur or deemed to be "particularly significant in illuminating the studied phenomenon" are elevated as "provisional theoretical categories which subsequently undergo selective or focused coding" (Charmaz, 2008; cited by Kenny & Fourie, 2015, p. 1279). Being able to put some information aside helped focus my reflection. It wasn't gone forever; it was just put to the side to help me focus on what was emerging. We can't solve all of life's problems in one day and we can't try to force our understandings of our own actions into a 'one-size-fits-all' way of thinking.

CGT process: Theoretical sensitivity

Theoretical sensitivity reflects researchers' "intellectual history, the type of theory that they have read, absorbed and now use in their everyday thought" (Birks & Mills, 2015, p. 12). For me, theoretical sensitivity prompted me to consider not only my current role as an educator, but my background as a business academic. Coming from this angle prompted me to consider underlying assumptions that might be evident in decisions made or ways of thinking regarding course delivery. For example, I began to think through a management lens (e.g., managing engagement, consider both the production standpoint, such as staff management, as well as the outcome for the 'customer', such as the student experience).

Asking questions is not a one-time process in either CGT or reflection. As such, I began to ask myself questions such as: 'how do I manage high engagement' and 'is high engagement always good engagement'? Asking these questions while embracing theoretical sensitivity prompted me think about concepts such as bottlenecks via a business lens rather than an educational one. Whilst in educational literature bottlenecks are typically places in a course where "students encounter obstacles (bottlenecks) to mastering the material" (Sturts & Mowatt, 2012, p. 41), in business literature, bottlenecks are situations where volume exceeds capacity; in essence part of the organisational system obstructs completion of organisational tasks (Shortle et al., p. 2018).

Following the advice of Charmaz (2006), I delayed my literature review until after data analysis. At this point I read about management approaches relating to bottlenecks, tasks systems, and methods of control, whilst also exploring educational literature. Doing this, whilst utilising memo writing, constant, comparison and abductive reasoning, led me to the development of a four-stage process that considered individual tasks within the wider course delivery task system. Whilst I had one framework that provided a tool for understanding and managing the various types of high engagement (good and bad), there were still codes remaining left uncategorised. One causing frustration related to actions taken to improve engagement (rather than mange existing engagement). At this point I reached out to my colleague to see if he could help assist. Although pedagogical literature often considers reflection an individual experience, reflection with others can facilitate the depth and quality of reflection (Moon, 1999, p. 172). My colleague proposed the BCG matrix (a marketing management tool that distinguishes four product types based on level of *market share* and *growth)* as a possible tool that could be modified to assist in examining the data. Adjusting market share to focus on

supply and market growth to *consumption/demand,* meant I was able to view codes through a supply and demand lens: what was supplied as *course resources* (e.g., time, knowledge) and consumption as *engagement*.

CGT process: Generation of GT

The outcome of CGT is the construction of theory. In this study, I would describe the theory generated as frameworks, or tools, for course analysis that provide insight into what might need attention. I and my colleague are currently finalising a paper that explains in detail how these frameworks operate and their relevance for academics to apply when considering course delivery (in any discipline).

Looking back and moving forward:

Looking back on the process, I found value in that, whilst there is openness and flexibility in CGT, the CGT process provided systematic procedure to the reflective process. Online teaching is rapid with a lot to consider and adapt to and improve. Rather than struggling knowing where to start with reflection, the CGT process provided a strong, well-established process to facilitate effective, research-based outcomes from reflective practice. Importantly, these outcomes come from using an established methodology (CGT) that can be communicated and transferred. I have since published a detailed overview of this process (Williams & Murray, 2025) and aim to not only continue using and detailing how CGT can be used as a method for reflection.

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