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Reconstructed Grounded Theory: Beyond Comparison?

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Abstract

This paper examines the modifications made to constructed grounded theory for application within an ethnographic study of group work processes in a virtual learning environment. The paper details how the complex professional relationship of educational practitioner research, and the associated ethical issues, together with the variety of data analysed influenced the approach taken. The paper explores how the adaptations to constructed grounded theory process were applied and how this approach can be construed as grounded in grounded theory.

The paper is explicit about the application and adaptation of grounded theory to meet the needs of the research and the epistemology of the researcher. Many studies purporting to use grounded theory are less explicit, this paper is intended to contribute to the discussion and development of a flexible approach to grounded theory, fit for purpose within the restraints of a practitioner based virtual educational ethnographic study.

The relationship of the practitioner researcher (an Associate Lecturer) and the participants (the students) created a dichotomy between the neutrality and social distance of the researcher and the ethical implications for the Associate Lecturer. Whilst the participants were not vulnerable adults, many of the participants were novice learners returning to study and therefore a duty of care was required. The paper explains how the adaptation of constructed grounded theory enhanced the analysis and provided richer data than ethnographic observation alone.

Despite the divergence from constructed grounded theory methods, rigor was achieved through the comparison of the coding produced throughout the analysis of the data. This level of rigor led to the emergence of unanticipated themes which influenced the group work processes. It is my belief that these would not have appeared through generic inductive approaches as they would have been overlooked and ignored without the line by line analysis. The modification of the grounded theory process retained the influence of constructed grounded theory rather than claiming to be rooted in constructed grounded theory. But the techniques applied are not beyond comparison with grounded theory. The research into virtual group work is timely in light of recent UK Government reports and relevant as interest in network delivered learning continues to grow.

Keywords

grounded theory, virtual ethnographic study, practitioner research

Introduction

This paper examines the modifications made to constructed grounded theory for application within an ethnographic study of group work processes in a virtual learning environment. The paper details how the complex professional relationship of practitioner research and the variety of data analysed influenced the approach taken. It considers the ethical issues in the context of practitioner research which underpinned the modifications. The paper explores how the adaptations to the grounded theory (GT) processes were applied and how this approach can be construed as grounded in GT. It concludes by addressing the questions: Can the adaptations to grounded theory described in the paper claim to be GT or merely influenced by GT? Are the processes described beyond comparison with GT?
The research was an investigation into the processes of online group work adopted by non traditional, undergraduate learners on a UK Open University course; the underpinning research question was: “What was happening to enable the groups to undertake the tasks and deliver the products?” From a tutor perspective, traditional face to face group work models were not evident and therefore the research required an in depth analysis of the actions and processes. The relationship of the practitioner researcher (an Associate Lecturer) and the participants (the students on the course) created a dichotomy between the neutrality and social distance of the researcher and the ethical implications of the Associate Lecturer. Whilst the participants were not vulnerable adults, many of the participants were novice learners returning to study and therefore required a duty of care. The paper will explain how the adaptation to constructed GT enhanced the analysis and provided richer data than ethnographic observation alone.

The findings from this research are relevant as interest in network delivered learning continues to grow. It is timely in light of recent UK Government reports: “Higher Ambitions” (2009), “Part time study in Higher Education” (King 2008) and “Online innovation in Higher Education” (Cooke 2008) all of which draw a parallel with the participants in the study and context of their learning.

Context

The research was conducted with forty four students from three cohorts of the Open University course, “T171: You, your computer and the net”, over a three year period 2003 - 2005. The students were non traditional learners with a range of educational experiences from no post compulsory education to second degrees. Many students were returning to study and were new to wholly online learning. The students studied and communicated entirely online, although there was one opportunity to meet face to face prior to the commencement of the course. The course materials were delivered via the web; communication and group work were conducted through the electronic medium of FirstClass conferencing. Each cohort engaged in four small group task based online tutorials (OLTs), students working with different peers on the group tasks. Twenty two OLTs were analysed, constituting in excess of 350 pages of conference transcripts. Other sources of data included assessed reflections on the OLTs and whole group work process, tutor/field notes and interviews.

The role of Associate Lecturer is recognised as “pivotal to the course experience” through the tasks of moderating and facilitating learning (Cox et al, 2000). Course content, OLTs and assessment were prepared by the course team, therefore the role of the Associate Lecturer was to support and facilitate learning through the online conference and through the feedback on assessment within the boundaries of the course. Integral to the Associate Lecturer role were the development of learning skills and building the confidence of novice learners. Within the Open University context, feedback on assessment is a key feature of the learning process. Marking was undertaken against specific marking criteria which did not map to the analysis of the group processes. If analysis had been undertaken during teaching, the in depth understanding of the processes adopted may have influenced the marking against the set criteria. The priority had to be the impartiality to the student participants and grading had to be transparent; marking only against the content presented for assessment and not influenced by the knowledge and understanding developed through analysis. Norton (2007, p163) argues strongly that pedagogic researchers should:

“... think ethically about the consequences of carrying out research on students who are vulnerable and depend on us (we grade their work and ultimately determine the classification of their degree)”.

There would have been potential for a conflict of interest by letting the analysis influence the assessment and as Gorman (2007, p16) states, “even where risk might be minimal, it must be considered”. These tensions between the roles of practitioner and researcher are not uncommon in educational research, Rivers (2008) encountering similar conflicts. It was the relationship between the students and Associate Lecturer which influenced the modifications made to GT approach. Strauss and Corbin (1998, p43) too strove to maintain objectivity through “appropriate measures” therefore minimising “subjectivity of the researcher into the research” (Charmaz 2010, p184).

Applied grounded theory principles

Since the publication by Glaser and Strauss (1967) of their seminal work “Discovery of grounded theory” many researchers have claimed to base their work on GT (Hood 2007). However, frequently studies purporting to use
GT are less explicit as to how it has been applied (Henry, Sturgess and Klingner 2005, Charmaz 2006). This paper is intended to contribute to the discussion and development of a “flexible approach” to GT which is fit for purpose within the restraints of a virtual educational ethnographic study and practitioner research. Charmaz (2010, p185) states that GT “offers a set of flexible strategies, not rigid prescriptions”. This paper is unequivocal about the application and adaptations made to GT within the ethnographic study.

Over the years adaptations have been made to the GT process (Corbin and Strauss 2008, Charmaz 2010) and three strands of GT have emerged: “Glaserian, Straussian and Charmazian” (Hood 2007, p163). Each strand maintains the core principles of theoretical sampling, constant comparison and theory development. The Glaserian strand maintains the apprenticeship model, taught by the master of GT, maintained and supported by Glaser through the publication “The Grounded Theory Review”. Straussian (and Corbin) moved towards a textbook on systematic analysis in the form of “Basics of Qualitative Research” (Strauss and Corbin, 1990). It should be noted that over time Corbin (Corbin and Strauss 2008, p viii) questioned the “one grounded theory approach”. The 3rd edition produced by Corbin (ibid.) acknowledges the influence of Charmaz (2006) and the application of “postmodernist and post constructivist paradigms to grounded theory” (Corbin and Strauss 2008, p9). The divergent views on the application of GT principles and the perceived flexibility of the techniques are well documented and at times vitriolic (Glaser 2002). However, the precedence has been set regarding adaptation of GT. The internet and, in this instance, the virtual learning environment are still in their infancy in terms of social science research and they open up new possibilities for online research (Blank 2008) which will require adaptation from traditional methodologies and methods for concepts to emerge (Brent 2008).

The principle remains that GT offered a set of guidelines which were to be used flexibly and could accommodate both quantitative and qualitative research. Glaser and Strauss (1967) proposed a systematic, yet flexible approach to analysis which was reliant on extensive fieldwork (Charmaz and Mitchell, 2001). Charmaz (2006) extended the flexible approach originally offered by Glaser and Strauss (1967) and adds the caveat that:

Neither the observer nor observed come to a scene untouched by the world. Researchers and research participants make assumption about what is real, possess stocks of knowledge, occupy social statuses, and pursue purposes that influence their respective views and actions in the presence of each other. (Charmaz, 2006, p15)

The caveat has resonance with educational researchers and research students who are unlikely to enter a field or put forward a research proposal without some background knowledge (Bruce, 2007). Charmaz (2006) builds her case for constructed GT on the premise that theorizing social actions is done in conjunction with other people, participants who inform the process. Glaser (2002) continues to argue against Charmaz’s (2000) construct of truth stating that this removes the participant reality and is further distorted by the researcher. The processes adopted within this study aim to eliminate such distortions through the modifications made to GT and post course analysis, however the effort made to eliminate researcher distortion may appear to take the adaptations towards a positivist approach rather than constructed GT.

GT was professed as a style rather than a method or technique (Strauss, 1987) with the guidelines remaining open ended (Glaser 1978). There continues to be a lack of clarity as to GT being a methodology (Glaser 2009) or a method (Bryant and Charmaz 2007). Strauss (1987) is unequivocal that GT “offers general guidelines and rules of thumb to effective analysis” (p1); nevertheless for devotees of Glaserian GT it has become a set of commandments, as manifest in the “Journal of Grounded Theory”, rather than a set of principles and practices (Atkinson, Coffey and Delamont, 2003). Strauss (1987, p5) states that the focus for qualitative researchers has been on improvements in data collection, the “analytic considerations being at best quite secondary”.

The tenets that define constructed grounded theory, on which this study is loosely based, are:

1. Minimising preconceived ideas about the research problem and data
2. Using simultaneous data collection and analysis to inform each other
3. Remaining open to varied explanations and/or understandings of the data, and
4. Focussing data analysis to construct middle- range theories
   (Charmaz 2008 p155)

Charmaz (ibid, p161) later states the defining properties to be “(1) systematic, active scrutiny of data and (2) successive development and checking of categories.” The adaptations to the GT described in this paper follow the advice given by Corbin (Corbin and Strauss 2008, px) to use “[grounded theory] procedures in ways that best suit.”
**Conforming to grounded theory techniques**

The research question was specifically about processes adopted by the participants; this was not a descriptive account of activities. The data sample appears to be “a priori purposeful sample” (Hood 2007, p157), however the initial data collection was across a broad range of courses rather than the final single course focus. The decision being taken to concentrate on activities which were consistent over a three year period, rather than examining a wide variety of group tasks and models of delivery. Data gathering was continuous over the three year period and became broader than the initial planned OLT transcript. From the analysis of the OLT transcripts, it emerged that the analysis was one-dimensional. Through the process of constant comparison, gaps in the analysis emerged requiring theoretical sampling, therefore additional data was sought which included assessed reflection. Later in the analysis of the pilot study, interviews were included as a data source to maximise understanding of the processes involved. This was comparable with theoretical sampling as:

… directed by the evolving theory: it is a sampling of incidents, events, activities, populations etc. It is harnessed to the making of comparisons between and among those samples of activities. (Strauss and Corbin, p21).

Line by line coding was undertaken for all the OLT transcripts, memos were attached and further comments added relating to the themes and areas requiring further clarification and questions (Charmaz 2010). Comparison was made across the same OLT activities in each cohort; finally, comparison was made across the same OLT activities for all three years and the reflections associated with the OLTs. This process led to the refinement of the coding and the emergence of themes. For example, coding “acknowledgement” required differentiation as it could relate to acknowledgement of contribution under the netiquette theme or acknowledgement of presence under the social theme. Constant comparison in this instance was interpreted as Wasserman et al (2009) describes: comparing everything together. Charmaz (2010, p188) offers a comprehensive list of items which make up constant comparison including:

a) comparing different people views, actions etc,
b) comparing data from the same individual at different points in time,
c) comparing incident by incident,
d) comparing data categories,
e) category with other categories.

Each of which was undertaken within this study. The comprehensive and detailed comparison of the OLT, reflections and interviews which were cross referenced to individual postings within the OLT transcript, this enabled the hidden unwritten group processes to emerge. More significantly, the comparison process identified the barriers to the development of theoretical models of online group work processes.

**Deviation from grounded theory methods**

There are deviations from constructed GT within the study. The deviations were due to the context of the research and the relationship within educational, practitioner research. Firstly, analysis was conducted after the primary data had been collected. This was both necessary and beneficial to the study. As the Associate Lecturer, the priority was the students and their learning. By analysing post-course completion, there was a social distance from the data and the participants, allowing the researcher to read the transcripts from a research perspective rather than a learning and teaching perspective. This objectivist stance is similar to the approach taken by Strauss and Corbin in their writing as “distanced experts” (Charmaz 2010, p185). The adaptation to constant comparison supports the argument that constant comparative method is “…one mode or variation of practical research reasoning” (Atkinson et al 2003, p 150). It is important to note that there is no discussion regarding ethical issues underpinning constant comparison which might impinge on the analysis process in particular within participant research.

Theoretical sampling can be described as going back into the field to fill in the gaps in the categories, elaborate the analysis and to discover variations within the categories and saturation (Charmaz and Mitchell 2001, Charmaz 2010). Theoretical sampling is recognised as difficult for an ethnographer, likewise saturation is difficult to achieve (Timmermans and Tavory, 2007). Yet, Charmaz and Mitchell place the onus on the ethnographer for the advancement of theoretical sampling, saying it is dependant “on the researcher’s working
and writing styles” (2001, p168) conceding that an ethnographer may not use theoretical sampling. A suggested adaptation for an ethnographic study would be returning to the data, rather than the field, another deviation from one of the key characteristics. Yet, within this study, theoretical sampling was pivotal to the emergence of netiquette as a block to a theoretical model of group work, identifying hidden actions revealed only through interviews which were used primarily to fill in gaps in the analysis. Data collection was also curtailed due to the expiry of the course, although theoretical saturation had been achieved and was confirmed when analysis was compared to Bales (1953) during the post analysis literature review. The above features from the tenets of GT are important to the adaptations made to the analysis process; the following sections expound the rationale.

Rationale for reconstructed grounded theory

The first divergence from constructed GT was the simultaneous data collection and analysis. The OLT postings were read and processed differently in the different roles as Associate Lecturer and researcher. As an Associate Lecturer, the OLT postings were read individually, often on a daily basis, for the purpose of ensuring individual learners’ progress and development, and to ensure the overall direction of the tutor group cohort. As a researcher, the OLT postings were read as a complete, continuous document, often three weeks worth of postings. Reading the complete transcript allowed the detailed inter-relationships between the group members to emerge, which were overlooked or unseen in the individual postings. The focus of the analysis was on the group processes as a whole and an in depth understanding of the group processes which were occurring within the OLTs. As a tutor, the postings were read and responded to on a daily basis, often in isolation of other postings rather than as a contiguous thread. As a researcher, the OLT postings were read as a complete continuous transcript creating a holistic perspective of the complete interactions for an OLT. Whilst this is contrary to one of the key tenets of GT, the depth and enhanced analysis this process produced outweighs the variance.

The assessed reflections were also read and processed differently when marking the reflection and analysing the reflection as data. Marking separately to the analysis process removed the potential for the mark to be influenced by the detailed analysis of the OLT. By conducting the analysis post course, assessments written by the students on the OLTs were marked solely against assessment criteria and marked based on the material presented in the assessment rather than constructed knowledge developed through detailed analysis of the OLT activity. Consistency of marking was a critical factor on a large course and independent moderation was undertaken to ensure uniformity of grading across all tutor cohorts. The inclusion of the assessed student reflections influenced the modification of GT.

Each data source, OLTs and reflections, was analysed independently and the analysis and coding triangulated through comparison with each data source. For example, the content of the reflection could be directly attributed to a specific posting in the OLT transcript. Through the process of comparison, with analysis of the OLT transcripts and the reflections, the coding was revised. By mapping the analysis of the data, anomalies were recoded to ensure consistency. The process was then repeated for each of the three cohorts, following course completion. Coding was undertaken without direct reference to previous years’ coding for each OLT, however there was an understanding of the general coding which had emerged from the whole course analysis in previous years. The approach to data collection and analysis provided social distance between the two roles of Associate Lecturer and researcher; it also allowed the data to be viewed impartially without the emotional attachment of the tutor role.

All the data relating to the OLT group activities were analysed to ensure saturation, through line by line coding or focused coding (Charmaz, 2006). Line by line coding is advocated by Glaser (1978). The detailed level of coding of the complete transcript of all the actions pertaining to the OLT group activities was in far greater depth than could have been achieved through the analysis of visual observation field notes. This level of saturation allowed, through the process of induction, the emergence of the theme of netiquette which does not form any part of group work theories or models.

Semi structured interviews conducted using stimulated recall also allowed students to articulate their actions during each OLT. These post course interviews were used to clarify observations and probe for personal reflection on actions not articulated in the OLT transcripts or assessed reflection. The interviews paralleled the theoretical sampling process, filling in gaps and providing additional explanation of events and activities. Tutor/field notes written in real time during teaching were also used to clarify actions and identify actions which were seen to be significant at the time. These notes were not analysed, rather used as supplementary information.
Data collection for the study was constant throughout the duration of the course presentations over the three year period. With constant comparison there is a further assumption that access to participants will continue, this is not the case in educational research where each year cohorts of students change. For this reason, the process of analysing all the data for each cohort created a series of discrete case studies and gave an end point for further data collection. The impact of the case study boundary on the first cohort pilot analysis influenced the later stages of analysis and verification when it was discovered that development was not seen longitudinally during the course duration but commonality could be seen across the same activities over the three cohorts.

Summary of adaptations

The adaptations required to conduct GT within an educational virtual ethnographic study have been outlined above. To the GT purist, the adaptations deviate from the Glaser mantra, indeed they go beyond the accepted norms of Charmaz’s (2006) constructed GT. Yet, Strauss (1987, p8) repeats the emphasis on modification of methods by stating:

…methods, too, are developed and change in response to changing work contexts … study them, use them, but modify them in accordance with the requirements of your own research. Methods, after all, are developed and changed in response to changing work contexts.

The study highlights the challenges faced by an educational ethnographer, the ethical issues with the role of the practitioner researcher and the changing locus of research within virtual environments which do not conform to traditional processes of data collection. The characteristics of GT have been used as flexible guidelines, guiding decisions rather than following directives. The adaptation has allowed the themes to emerge from the data without forcing the data. The emergent themes clarified the notion that group processes were different in online groups and the emergence of the influence of netiquette on group processes substantiated the preliminary observations. Methodologies and methods are required to be fit for purpose, and should be “evaluated for where they ‘work’ for the researcher” (Timmermans and Tavory, 2007, p495). The systematic, line by line, analysis ensured the complete transcript was analysed, which provided an insight and in depth understanding beyond field notes/tutor notes, observation achievable only when the emotional bond of the tutor was removed from the practitioner research following the course completion. Timmermans and Tavory (2007) “suspect few ethnographers see the usefulness of diligently coding and writing analytical memos over several years” (p 504), yet in a virtual ethnographic study adoption of line by line analysis would ensure that the virtual ethnographer engages with all the data rather than selective observation.

The Claim

If the value of the application of GT processes, rather than rigid adherence to the techniques, is to achieve rigor, validity and credibility then I argue that through the process described this has been achieved.

Rigor, through in depth analysis using line by line coding of the OLT transcripts and reflections, was achieved beyond observation and interview. The line by line coding, according to Charmaz (2010) reduces the influence of researcher beliefs and leads to the refinement of concepts. The multiple data sources created rich data beyond observation and interview. The process was not about “story telling”, rather it was the authentic voice which is analysed (Glaser, 2002). Every recorded interaction was coded rather than just the participant observer’s field notes and interpretation being coded. Through the merger of the data and analysis from the similar activities from the three separate cohorts, rigor, objective analysis and comparative coding were achieved. Whilst the study was undertaken as practitioner research, with the recognition of the potential for researcher bias, “tutor emotional effect” or “relationship slippage”, was reduced through the application of post course analysis. This process emulated the distance achieved in “non interested” research and the potential for the researcher to be reactive to the observed situation (Friedlander, 1982).

If validity relates to logic then validation comes from measures which are repeatable and the choice of method that fits the purpose of the research. Chao and Trent (2006, p321) define transactional validity in qualitative research as:
…an interactive process between the researcher, the researched, and the collected data that is aimed at achieving a relatively higher level of accuracy and consensus by means of revisiting, facts, feelings and experiences, and values or beliefs collected and interpreted.

The application of triangulation with extant data, individual reflections which were directly mapped to original data and coding in many instances, provided consistency of analysis and explicit coding offering transactional validity. The use of the data in this way replicated “consensual agreement” (Friedlander, 1982, p436) and triangulation ensured a systematic approach to the development of coding and subsequent emergent themes.

The analysis was based on an organic activity (Wasserman, Clair and Wilson, 2009) participants were interacting with purpose towards a specific goal. The application of the constructivist approach to GT explicitly includes the feeling and emotions of the participants, through reflections and interviews, retaining the humanist aspect of the research (Charmaz 1990, 2000). Within studies which include the use of email as data, credibility is enhanced following adaptation of conventional research (James and Busher 2006); the transcripts of the OLT are in essence a series of emails sent to a group.

The quest for rigor, validity and credibility appear extreme within constructed GT, however as a practitioner researcher from a computer science background the analysis satisfied the latent positivist ontology and epistemology requiring subjectivity to be reduced through validation.

**Conclusion**

This paper has been explicit about the application and adaptation of GT to meet the needs of the research and the personal epistemology which is grounded in positivism yet recognising the humanistic. Many studies purporting to use GT are less explicit but this paper is intended to contribute to the discussion and development of a flexible approach to GT which is fit for purpose within the constraints of a virtual educational ethnographic study.

According to Hood (2007), claiming this study used GT principles would be misleading through the misuse of constant comparison and theoretical sampling; however, the adaptation was required to fit the context of the study. Wasserman et al (2009, p358) would take it further and call the modifications “abuse” of GT. The application of adapted GT principles, however, has resonance with Denzin and Lincoln’s characterisation of the qualitative researcher as a “Bricoleur” (2008). Thus recognising that practice is dependant on the question, which is dependant on the context (Nelson et al, 1992) and what the researcher can do in that context; adaptability is the tool of the qualitative researcher.

Despite the divergence from GT methods, rigor was achieved through the comparison of the coding produced through the analysis of the data. This level of rigor led to the emergent unanticipated themes which influenced the group work processes. The modification of the GT process retained the influence of constructed GT rather than adhering to classical or constructed GT. But the techniques applied were not beyond comparison with GT.

**References**


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