Grounded Theory: An Action Research Perspective with Models to Help Early Career Researchers

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Abstract:

Purpose: Early career qualitative researchers in the disciplines of management and organizational behaviour often face stressful dilemmas of being unsure of how to progress when analyzing data and writing a thesis. This can derail research prowess especially when studying dynamic and complex issues in the management of organizations. This article is framed around the development and application of effective and easy to use new models which have been developed to ease processing data and reporting research. Examples are given which show how these models have been applied successfully when using Grounded Theory and Action Research.

Methodology: This paper is a case study adopting participative Action Research, Grounded Theory and Process Consultation underpinned with a Constructivist paradigm in the disciplines of management and organizational behaviour.

Findings: This paper shares insights from the application of models devised and applied during qualitative research using Action Research, Grounded Theory and Process Consultation. The concepts addressed are not of an empirical nature, but a positive evaluation of the application of the new models to help Early Career Researchers in the disciplines of management and organizational behaviour.

Implications: The models add to the schematic resources available for consideration and adoption by PhD students and Early Career Researchers in the disciplines of management and organizational behaviour.

Keywords: Grounded Theory; Action Research; thesis writing; models; critical reflection.

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Introduction

When analysts sit down to analyze those first field notes, they often feel overwhelmed by the task in front of them. It is difficult for novices to know where to start, what to look for, or how to ‘recognize’ it when they see it.

(Corbin & Strauss, 2008, 27)

Introduction

We have developed and applied new models for researchers using grounded theory and action research that are particularly important to those in the early stages of their careers. The first model maps the process using a flow chart. This can be used as a checklist. The second model uses the analogy of a rope showing how the processing of data can strengthen the findings from research using grounded theory. The Zuber-Skerritt (2002) model illustrates a path for reporting research and Dick (2005) provides a practical model for showing the relationship between information and theory by identifying categories of data to help validate findings.

It is important to address the research process separately to demonstrate how the theory and, therefore, knowledge development occurs. The epistemology underpins the methodology by explaining what knowledge is from a philosophical basis (paradigm) whereas the process is the way the data is collected, analyzed and then claimed as theory and accepted as a contribution to knowledge.

The article discusses actual examples from successful research and the step-by-step processes of grounded theory. According to Dewey (1929, 189), whose ideas were the basis of the grounded theory process: ‘All reflective inquiry starts from a problematic situation, and no such situation can be settled in its own terms’.

Action research is regarded (Cherry, 1999; Dick, 1992, 1993, 2000; Reason & Bradbury 2001) as reflective inquiry and is complementary to the grounded theory process. The models developed by Zuber-Skerritt (2002) and Dick (2005), and included in this article, are considered to be assets for researchers as a guide to process insight and effective tools. This approach helps to overcome the problems often confronting higher research degree students as recognized by Corbin and Strauss’s opening quote (2008, 27)

These processes have helped researchers develop ways of looking deeper into easily accessed surface data (Argyris, 1982; Argyris & Schön, 1996) and enabled them to recognize key concepts, facts or principles. By identifying these issues the investigator can develop effective theories to interpret the research data. This approach has been particularly successful in a research process known as Grounded Theory (Strauss and Corbin, 1990; Strauss and Corbin, 1997; Strauss and Corbin, 1998; Glaser, 1978; Corbin and Strauss, 2008; Golden-Biddle and Locke, 1997). We build on the work of the recognized Grounded Theory authorities such as Glaser (1978, 1992), along with Strauss and Corbin (1990, 1997, 1998, 2008) by introducing several illustrative models to help researchers achieve a clearer understanding of these interrelated processes.

This article provides insights into various aspects of applied methodology as it relates to progressing from specific post-modernist philosophy to the research processes of Action Learning, Action Research, Process Consultation (Schein, 1988, 1995) and Grounded Theory.

Background

Grounded theory was originally developed by sociologists, Barney Glaser and Anselm Strauss (1967). Strauss’s thinking (Strauss & Corbin, 1998, 9) was further influenced by Dewey (1922), Meade (1934), Thomas (1966), Park (1967), Blumer (1969) and Hughes (1971). Grounded theory was developed by recognising a need to address at least seven issues. They are: the need to go out into ‘the field’ to discover what is really taking place; the essential importance of data in the formulation of a theory and then how this theory can be used data to develop a discipline that becomes a reliable basis for social action; the complexity and variability of phenomena and
of human actions; the belief that persons are actors and take an active role in responding to problematic situations; the realisation that people act on the basis of meaning and that the understanding that meaning is defined and redefined through interaction; a sensitivity to the evolving and unfolding nature of events (process); and an awareness of the interrelationship among conditions (structure), action (process) and consequences.

Further, Strauss and Corbin (1998, 7) described the characteristics of a researcher adopting/applying grounded theory as having six attributes, namely: the ability to step back and critically analyze situations; the ability to recognize the tendency toward bias; the ability to think abstractly; the ability to be flexible and open to helpful criticism; sensitivity to the words and actions of respondents; and a sense of absorption and devotion to the work process.

In our research project grounded theory was the primary qualitative process applied to develop and report the claims of theory and knowledge (Annells, 2015). The action research processes work in support of this primary process. Strauss and Corbin summed up grounded theory as:

The procedures of grounded theory are designed to develop a well-integrated set of concepts that provide a thorough theoretical explanation of social phenomena under study. A grounded theory should explain as well as describe. It may also give some degree of predictability, but only with regard to specific conditions.

(Strauss & Corbin, 1997, 5)

The overall procedure is challenging for researchers, and analysts (Glaser, 1978) because, within the research process there are several different objectives needing to be addressed simultaneously. In this research project objectives being pursued contemporaneously were identified in four areas: helping the organizations involved in the research to learn about themselves; extracting knowledge from research-based encounters to assist other organizations that may wish to pursue a similar ambition, or are faced with similar predicaments and are looking for effective solutions (the predictability aspect of high quality research); an ongoing review and evaluation of data as it emerges; and producing a thesis as a formal record of the knowledge gained from the research.

To illustrate how formal records can develop. As a result of the comprehensive research several documents were written and these have specific relevance to the two organizations involved. These documents varied in their context: including strategic planning guidelines and collated histories. They have been used separately by the relevant organizations (identified as Organization A and B).

**Linking Principles of Grounded Theory with the Five Processes**

The grounded theory process can be objectively mapped to explain its operation but the interpretation can be problematical and unreliable abstract because the subjective matters under investigation continually change. Strauss and Corbin (1990, 5) state that there are two main principles of grounded theory. The first addresses change because the phenomena are not static and are changing in response to evolving conditions. The second principle is the involvement of people or actors. They apply choices based on their perception of the issues which results in several things occurring. Firstly to uncover the relevant conditions and then catch the interplay to determine to determine how the actors respond to the changes and the consequences are of those actions (Strauss & Corbin, 1997, 5).

**1. Collection and Analysis**

Analysis should begin as soon as data is collected. This is a stage where action research provides a framework for analysis because it questions data during the initial observation and reflective stages. The researcher gathers data and assesses what is collected through typical questions such as: ‘Does this data relate to the research subject, is it relevant to its aims and objectives? If so: how and why? Does it relate to other pieces of data, if so how and why?’ The answers give rise to more questions such as: ‘So what?’ This question helps the
researcher to evaluate and interpret data and formulate research proposition. It can also be necessary to re-evaluate and maybe change the way data is collected.

The multiple sources of data for research projects include: conversations; literature reviews (books, peer-reviewed journal articles); emails; correspondence; research memoranda; media reports; journal entries; personal observations; organizational records (including office memoranda); official minutes; reports; field notes; online sources; photographs.

Some aspects of these types of data are further described and evaluated to explain how they relate to the research process.

**Conversations:** conducted formally (and minuted) and informally. Some conversations in meetings, others have been phone calls. Some conversations with people directly involved with the topic under analysis, others with people not directly involved in the research (such as casual discussions about the topic with colleagues). For the credibility of the analysis it is essential that there should be a written record of these conversations. For example, field notes can be collated in a personal journal and research memoranda (Shankar, 1997).

**Emails:** these range from official to informal. There can be a large number of emails generated in the research process due to modern communication technologies. Emails however are not always reliable for several reasons. From our experience, delivery is not guaranteed. Even with settings to request delivery notification doesn’t ensure the addressee has received it. Changed email addresses can and do frequently occur and you may not have the most up to date email address. There are no guarantees that the recipient has in fact closely read them or that the author closely reviewed it for accuracy before sending. It is not uncommon for words to be omitted (written or read) which can change the meaning of the communication. Emails often need corroboration and confirmation and this can be achieved with follow-up discussions.

**Research memoranda:** also known as field notes (Shankar, 1997), are generated by the researcher. Arguably they are probably the most important tool for the researcher to address the observation and reflective stages of action research for the following reasons according to Shankar (1997) (citing Maxwell 1996): reflecting on your purpose for the research; reflecting on your experiences; creating concept maps for study; developing research questions; reflecting on research relationships including mapping the communication engagement; questions and methods matrix to link questions and methods (eg a financial analysis based question is likely to follow a quantitative method initially); dealing with validity threats to your study (largely addressed in the ongoing triangulation process); and, developing a valid argument for the hypotheses and theories.

Research memoranda can be many in number and take different formats depending on the purpose. Shankar (1997) concurs with Maxwell (1996) and Strauss and Corbin (1990) that memos help ‘move away from research data to abstract thinking.’ If they are thoughtfully designed they can also provide a codable record through memorandum titles.

Some research memos change in value as research progresses. They may have initially been used to express views of the researcher which may later not be confirmed by the ongoing collection and analysis of the data. Shankar (1997) cites Maxwell (1996, 12) ‘write memos wherever you have an idea you want to develop further.’ Strauss and Corbin (1998) state the memo writing should continue for the life of the project including during the writing of the thesis. They claim the detail and accuracy in memos improves as theory emerges and is refined during the research.

An extension of memorandums is the use of whiteboards. We set up an office with builders’ plastic covering two walls. This creates a large, useful substitute whiteboard as whiteboard marker pens can be used including being easily erased. Often the ‘thinking’ on the whiteboard was photographed to record data and transferred to print in memoranda. This

1 An inexpensive product available at any hardware store
became a ‘thinking wall’ as it enabled the author to focus thoughts particularly in developing the highly visual models such as featured for this article.

As more data is gathered it becomes possible to identify the common themes and core concepts. For example, do researchers’ questions to participants follow a particular issue; such as clarifying the actual status of the organization’s financial records. If so, what the specific aspects of that inquiry are. This is represented our first model in Figure 1.

**Figure 1: A process flow chart for questioning in Grounded Theory**

2. Categorizing Data

The corollary of concept one is categorizing gathered data. Data categories can be diverse, but usually there is a connection to the initial research question. This enables the researcher to start building the circumstantial case, or body of evidence, and to correlate the investigator’s finding and thereby eventually their claim of knowledge.

As data categories are identified it is necessary for them to be sorted so their significance can be analyzed within specific contexts. The specific term used is ‘coding’ (Strauss and Corbin, 1990; Heron, 1988a) and is discussed in more detail in the next section. A similar exercise that computer experts are familiar with is to sort through the files contained in a single large folder and move them into administratively categorized subfolders within the main directory. Indeed as computer-based research tools continue to be developed researchers must ‘learn to learn’ and apply new technologies. For example as identified by Strauss and Corbin (2008) whereby they map codes in software packages such as MAXQDA. However such programs are expensive and not readily accessible to early career researchers.

From reviewing Strauss and Corbin and Glaser’s literature there are few models to assist in explaining and comprehending their valuable work. We created a model (Figure 2) that represents the stages involved. It is an analogy of a rope as the strands represent data, or concepts. It commences with the raw data being conceptually ordered (business and finance for example) and this shows the emergence of the strands (items of data). These strands are unraveled and separated into categories of concepts. They are then codified and matched up with similar, relevant strands. These then entwine and support each other to form a new rope.
The rope now is a representation of a grounded theory and the strength of the theory is dependent on the strands that construct it. The more strands there are the stronger the theory.

**Figure 2: The rope analogy demonstrating the grounded theory processing**

Strauss and Corbin (1990, 9) advise the analysis should make use of constant comparisons as shown in Dick’s Model (Figure 4). This helps group data to see what trends may be/are developing within the categories.

3. Coding

The coding follows a logical questioning sequence. This sequence leads to the classifying of the data according to their coded relevance. As with the categorizing, coding is the prerogative of the researcher who must examine any relationships within data so that the coding is consistent within the category to which it relates. For example, if the coding was related to the current financial position of the researched sporting organization it would not be appropriate to include historical correspondence from the stadium development steering committee meetings.

Based on our experience with criminal intelligence analysis with police, a simple two-tiered coding system, known as the Admiralty Scale (Joseph & Corkill, 2011), was used to grade intelligence reports. Firstly the source of the information is coded (i.e. graded or weighted) for example from A to F, on its possible accuracy. If it receives an A grading then it is regarded as an authentic fact; in comparison F grading is defined as unsubstantiated rumour (or even delusion). The range of B through D is a sliding scale of accuracy, with the mid-range regarded as anecdotal/hearsay evidence.

The second tier is the reliability scale and is the/a source known to have previously provided information that was substantiated and/or had a proven and credible value. This is coded from 1 to 6. The result of the two-tiered system is an easily recognized coded level of data with a combined rating from A1 (A: Completely reliable – 1: Confirmed by other sources) to F6 (F: Reliability cannot be judged – 6: Truth cannot be judged). An F6 will have the lowest probability of having any reliability or value. However, it is not discarded and remains in the analysis for cross-referencing and post inquiry information audits.
Coding for grounded theory is similar and codifies the data based on its meaning. This is similar to categorizing, but creates readily recognizable associations within the overall data. Strauss and Corbin (1998, 58) state that there are three key aspects of coding: the data, the interpretation, and the way the researcher reacts to and works with the data.

4. Conceptual Ordering

The coding of the research data is progressed to a similar process and important step of conceptual ordering (Strauss and Corbin, 1998, 19). This means that the various properties of the data and related concepts are clustered so the researcher can focus on specific trends or concepts to determine a hierarchy of relevance.

5 Forming Theory

The forming theory stage is the culmination of the five-step process. This creates a difficulty as the grounded theory concept of ‘theory’ does not have the same literal sense as it does in the hard sciences nor a positivist philosophical paradigm (Chalmers, 1976; Glaser, 1978, 134; Burrell & Morgan, 1979, 260). The status and meaning of theories within a constructivist paradigm are very different to a positivist one (Burrell & Morgan, 1979). Within a constructivist methodology and philosophy, the idea of theory bends with the subjective sociological nature of management and organizational behaviour. This alternative interpretation of ‘theory’ doesn’t diminish its importance; to the contrary it enhances the worth of the input of perception and experience from people participating in the research and inquiry.

It is an important aspect of this type of research to reinforce. As a consequence Mintzberg’s (2005, 1) view has been adopted and applied because he says that theories are just ideas on paper and there are only describing situations and they are not a true reality. He is seeking to find how useful they are not how true they are.

As data is analyzed using grounded theory Straus and Corbin (1998, 13) advocate that conditions of the testing should be carefully defined. Although it’s unlikely that the original conditions can be duplicated, the abstract theoretical concepts allow a broad application in similar situations in organizations.

Theory that emerges must be grounded in the data that relates to specific circumstances and events. The more systematic and widespread the theoretical sampling the more generalized the theory can be, however the challenge is to find enough episodes of similar or comparable circumstances to benefit from widespread sampling.

Once these processes are understood and applied we can now consider first-hand at how grounded theory works in research projects.

Grounded Theory in Action

Glaser (1978, 134) states: ‘the assumption of the reader, he should be advised, is that all concepts are grounded and that this massive grounding effort could not be shown in a single writing.’ What this means is that to try to include each piece of data and how together they relate for the entire research project would make a thesis intolerably long for readers.

To demonstrate how this process works we extract an example from a research project that considers strategic planning and show how this finding emerged. This will then be linked with a condensed demonstration of another important part of the research: the financial considerations. This was a subordinate aspect in the conceptual ordering that was critical but not considered to be a reported finding of the research.

The Emergence of Strategic Planning

Initial data on this concept was from the first contact with Organization A’s President who stated that a taskforce was being convened to consider the business and financial
practices of the organization. The Board of Directors (BOD) were concerned that an emerging trend in the data showed the organization was heading into debt and asked for an inquiry.

Process concept one was to question if there is a problem with the current business and financial practices and what data have the potential to help determine the focus of research questions. This was one of the first research memoranda. Consequently, data that was gathered became broadly categorized to record the business and financial matters.

This concept and its categories evolved after the first meeting with members of the Board. A key question had been seeking information defining the organization’s non-financial targets. The response from that answer became significant as it was targeting business practices. The expertise and experience of the members of the taskforce was extensive as all held senior ranks in a variety of large and well-known corporations. The answers given to this question became a focus for discussions within the taskforce. According to Dick’s model (2005) (see Figure 4), the answer disconfirmed the presence of some essential business practices (most notably strategic planning), and confirmed that this was an area where more information was needed. The emergence of a focus on the business practices, is an essential component of strategic planning separated from the financial context. Often, however, strategic plans exclusively focus on financial aspects to address budgeting and meeting the forecasted bottom line. Kaplan and Norton’s (1992) work on the Balanced Scorecard approach demonstrate a shift to include the non-financial matters, also known as intangible aspects.

An Action Research Perspective

Action learning and action research (Cherry 1999; Dick 2002) has a four stage repeating cycle: plan — act — observe — reflect. From an action research perspective the plan was to ask probing questions. The action was to then convene a face-to-face meeting with the management board for a question and answer session. The observation was the gathering and recording of information from these meetings. The fourth stage, reflection, was the discussion by the taskforce at a later meeting to address the consequences of the answers.

After these four stages the action research cycle enters a second phase: the research now has a predictable or unexpected answer, and what action should follow? Grounded theory data gathering shadows the action research process and supports it with its fact-finding and recording of data. Glaser (1978) says the researcher must be making constant comparisons; comparing the data with what is already known elsewhere, and whether it is consistent within the research. More is said of this later with discussion of Dick’s model. It is aligned with action research with the stages of analysis in the reflective portion of the action research cycle. As discussed earlier, if this is what is observed what does it mean? (these are the observation and reflection stages).

Experiential Knowledge

The taskforce had expertise (i.e. experiential knowledge) in strategic planning. There were many identifiers the researchers looked for to confirm or disconfirm the presence of strategic planning and strategic thinking within the subject organization. The observers’ focus was the Board’s understanding of and experience with strategic planning. More data was gathered to confirm this aspect. The search for artefacts such as a hard or electronic copy of a business plan, past or present, could provide insight into the extent of the strategic planning skills within the organization. If such documents existed they would become subject to detailed analysis. However, no useful documents were discovered. The absence of obtainable data can be significant in the context of inference, although does stray close to assumption based thinking. By inference, the researcher at times may need to remark on the possible consequences of the lack of data when every attempt has been made to obtain it.

Sometimes data is not provided. Other times its absence can be indicative of causes of the problems; for example not understanding the importance of accurate record keeping.
Following the analysis of the data a plan was developed for the taskforce to engage in process consultation (Schein, 1982) to help the Board learn and apply strategic planning. This would involve engaging with the Board to brief them on what the taskforce had learned about the performance of the Board and how that compared to known best practice. This feedback was to demonstrate how the taskforce had come to its conclusion and to provide the Board members with an opportunity to involve themselves in an experiential learning process (action learning). This part of the process was dialogic as it provided face to face discussions with those involved in the research and gave an opportunity for the taskforce to get feedback from the Board if the taskforce (researchers) were on the wrong tangent in their inquiry.

Developing an Hypothesis

The plan to help the Board develop strategic planning skills was then subjected to some critical thinking. A major problem emerged because there was insufficient time to take the Board through an educational presentation and then develop a strategic planning process. As the Board were volunteers their time was precious, as was the time of the taskforce who were also volunteers. At this point another grounded concept emerged: the issue of alignment, how to align the taskforce’s time together to maximise the benefits for the Board in the sharing of knowledge to develop volunteers’ skills.

Some plans were therefore subjected to a reflective cycle by doing a scenario assessment: if we as researchers take this course of action what will be the consequence? As researchers how do we adopt an approach that can confirm our plans are heading in an effective and efficient direction? These questions and observations are all recorded as memoranda as part of the grounded theory process.

The plan was to teach, the action was to convene workshops, the observation was of the participation in the workshop and the reflection was for the taskforce to meet and review the workshop. The analysis of data determined it was probable the Board would benefit from having a strategic planning handbook developed for them. This came from data from earlier interviews that there were no strategic planning documents in the possession of organization.

So from a single question a concept was identified and this led to the development of an hypothesis. That hypothesis was basically that strategic planning is important to an organization but may not be present in the studied organization. The theory emerges that in order to sustain the organization’s knowledge some form of readily accessible document should be developed in an easy to use and understandable format.

Conditionally Focusing the Theory

It is also the experience from this research that there can be links between concepts albeit they may produce different outcomes. One predominant underlying link was to improve the business and financial practices of the organization. This over-arching concept gave the general lens for looking at the research. Hence the relevance issue: does this theory help or hinder the progress of the organization? If similar conditions exist would this still apply?

Grounded Theory Demonstration

Another demonstration of how the grounded theory process works is to consider the research example investigating the sporting organization’s finances. To make this as brief as possible, the confirming and disconfirming data steps are omitted and proceed straight through the step by step outcomes. The conceptual thinking behind this aspect of the inquiry was to progressively find out details that have been laid out in Table 1.

Here the concept is illustrated with the progressive rationale. There was an educative aspect to this to get the membership aware that the organization was ‘toughening up’. This involved new signs being installed and a hands-on game by game monitoring/auditing of registered players on the score sheet as reconciled with the organization’s registration database. Players identified as unfinancial were told they had to pay the outstanding registration fee or
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else they could not play. This has been simplified, but it has extracted the core concepts that emerged from the research data to address one important aspect, improving the financial state of the organization.

Table 1: Demonstration of data relevance and relationship.

<table>
<thead>
<tr>
<th>Concept</th>
<th>Research rationale</th>
<th>Data for research</th>
</tr>
</thead>
<tbody>
<tr>
<td>What type of accounting was practised</td>
<td>Different accounting methods will show different focuses on key financial factors</td>
<td>Analysis of the organizations financial records and discussion with those involved in the book keeping - including the external auditor</td>
</tr>
<tr>
<td>Determine the quantum of suspected debt</td>
<td>The issue of debt needed quantifying to determine it severity and potential threat to the organization</td>
<td>Reports run from the organization’s accounting package and the comparative assessment from the auditor</td>
</tr>
<tr>
<td>Define the size of the membership</td>
<td>As it is a fee for service association the size of the membership would directly impact on the income propensity</td>
<td>Reports from the computer database</td>
</tr>
<tr>
<td>Ascertaining that in a cash flow scenario the association had an ongoing income based on the payment of membership dues</td>
<td>Related to the first mentioned concept and overall issue of identifying financial issues</td>
<td>Analysis of current accounting figures compared to previous years and membership number trends (increasing/decreasing)</td>
</tr>
<tr>
<td>Verify the level of current financial membership</td>
<td>Reconcile the membership number with the financial figures to see where the debt/income loss may have been developing</td>
<td>Data gathered from reconciling scoresheets and head counts at games against the formal registration data held in the organization.</td>
</tr>
<tr>
<td>Collect monies from unfinancial members who were currently playing sport</td>
<td>A first stage on the road to financial recovery</td>
<td>Confirming data as a result of the previously mentioned step established a mismatch in the online data and physical ‘on court’ player numbers</td>
</tr>
<tr>
<td>Design a change for the future culture of the association</td>
<td>That income from membership was paramount and that services for playing could not be extended to those who do not pay their membership dues - i.e. ‘if you don’t pay you don’t play’.</td>
<td>Supported by the data from the aforementioned</td>
</tr>
</tbody>
</table>

There are usually more reasons to support the action than have been shown in the table. This is why Glaser’s views (1978, 134) are relevant: ‘a massive grounding effort could not be shown in a writing’. However the two demonstrations do provide an accurate insight and explanation of the process to give the reader some confidence in the overall analysis process and therefore the integrity of any findings.

Reporting Grounded Theory

Glaser implores researchers to seek publication of their research. He believes the paramount goal of grounded theory methodology is to write conceptually and make the results publicly available (Glaser, 1978, 133): ‘by making theoretical statements about the relationship between concepts rather than writing descriptive statements about people.’ Locke (2001, 115) and her co-author Golden-Biddle (1997, 14) claim their purpose for writing is: ‘to persuade an audience of its plausibility and its relevance to our understanding of management and organizations.’ This is the view applied in the presentation of this article. Emphasis is drawn to the ideas being plausible.

In this project there was a simple dissertation model used (Zuber-Skerritt et al 2002), however as the model was applied there arose some unexpected complexities. A significant issue was the question, what is the most effective way to write up the research? The writing process used for this project was based on the following concepts.

There is a core research project that is recorded and appraised in a thesis. Hence the process depicted in Figure 3 has the core project surrounded by the thesis writing. The general process is represented in Zuber-Skerritt’s (2002) model; however there is a minor
ambiguity in the independence of the thesis research in Part 1 and again in the thesis writing Part 3 in Figure 3.

The ambiguity is that the bulk of this endeavour is the work of the student author/researcher but it is not entirely independent as there is a body of people who supported and contributed to various parts of the process. This is consistent with Straus and Corbin’s view of Grounded Theory process whereby they state a grounded theorist need not work alone (1998, 11). An important part of the research is testing concepts and their correlation with colleagues who have experience in the same substantive area (1998, 11).

Figure 3: The relationship between thesis research, core research and thesis writing

Adapted from: Zuber-Skerritt & Perry 2002, 177

In a literal sense Parts 1 and 3 are independent because the co-researchers from the core project are not involved in the process of compiling and submitting the thesis. Zuber-Skerritt reminds students there is another difference to distinguish: there is the collaborative project work and the individual thesis work which is the candidate’s contribution of knowledge to the field (2002, 172). Both should be documented, however the thesis is where all details can be referenced from one volume.

To turn now to how this can be applied.

Planning the Thesis

Part 1 of the writing process commences with planning the thesis. This involves identifying the project to engage in. In the case of this research this was solved in several ways. Initially there was a need identified by Organization A to inquire into the financial and business
affairs of the organization and the make recommendations on how to change and improve their practice. This was addressed in the Board’s formal terms of reference. This presented an opportunity to apply the constructivist methodology because there were many dimensions to consider in Organization A and these included social (intangible/subjective) and empirical (tangible/objective) matters. These aspects are not necessarily mutually exclusive as they are acceptable in an applied constructivist paradigm.

Field work

The field work as depicted in Figure 3 links with the core action research project in the model. This was a collaborative project as it explains the work of the taskforce. This is the launch pad for the process action. A detailed account of the field work can be described across several chapters in the thesis. The data gathered from the field work is continually subjected to the grounded theory process as described in this article.

This is consistent with the methodology because when the process of the reflective cycle of action research continues the resulting theory emergence from the grounded theory process can lead to deeper and extended research seeking further proving/disproving data as more questions continue to arise in the ongoing inquiry. This extends and enriches the inquiry; however, at some point the researcher needs to stop researching and report on the project. The researcher needs to explain that decision as to why they choose to go no further.

In the example research there was a decision made to seek more information and to therefore progress the inquiry into Organization B (a major stakeholder for Organization A) rather than stop with the results of the project for Organization A. This was a demonstration of how the research can shift into new directions as the knowledge is developed and new inquiry emerges seeking more knowledge. This developed a second core project, though actually the research into B was an extension of the cycle of the core project conducted with the A taskforce. Therefore the action research/action learning cycles are emphasized in Part 2 of the model by duplication in cycles 1 and 2 and 3.

Although Cycle 3 is shown in the model as open it is a representation of the continuation of the repeating cycle depicted in 1 and 2. This is also why action research is considered by some to be messy because the directions of the research can and do change and the outcomes can be hard to define. This is due to the dynamic conditions that can occur and impact on new information gained from the inquiry.

Evaluation

The evaluation identified in the model occurs at a relatively early stage (depicted in Figure 4). This evaluation was applied and contributed to the continuation of the research into Organization B because Organization A (a tenant) did not have a sound understanding of the governance and operations of Organization B (the landlord). However the participants in the research into Organization B were different people to those in the initial research into Organization A and they mostly played a narrative role whereas the people in Organization A had been in more of a co-researcher role.

The action research cycle stages of planning — acting — observing and reflecting have fairly clear differences and so they can be evaluated in separate contexts. Planning is very different to acting; acting (or implementing what was planned) is different to observing. Observing is quite a different process to reflecting. Reflecting could also be called contemplation, consideration or even introspection.

Reflecting is a key part of the evaluation process overall and has components of engagement, consultation and introspection. The involvement of the observer influences what is observed it is therefore necessary to identify possible biases in the research. This aspect of reflection is to evaluate and determine what the observer’s influence has been and formulate (or design) next step plans for gathering and analyzing data and to minimize potential bias.
Evaluation and Validation

The evaluation is helped by integrating Zuber-Skerritt’s (2002) model with Dick’s (2005) model (Figure 4). Planning/change is the objective and is stated on the outset on the left-hand side. It is not an either/or decision; Dick uses the ‘and’ approach.

In the context of validation Dick (2000) calls for diverse samples hence a broad net cast for data gathering.

... I use a simple strategy. When there are two or more pieces or sets of data there are likely to be disagreements between them. ... The data-driven process we are exploring here therefore seeks to bring about a different understanding. It does this by noting the differences and seeking explanations for them. ...In short, the apparent disagreements drive the understanding.

(www.scu.edu.au/schools/gcm/ar/arp/datadriv.html)

The process interrogates data to filter the disconfirming evidence. In Organization A’s research the President was one of the co-researchers and the disconfirming evidence of the data from the organization’s financial manager initially was identified by a semi-formal audit of the finances. The data from this was then expertly reviewed by an independent accountant.

Figure 4: Validation process

*Source: Dick 2005 ALARPM conference workshop

![Diagram of Validation Process]

What had been said to the Board was inconsistent with what was presented to the auditing accountant and the data was inconsistent in that there were allegedly two sets of accounting figures to reconcile the finances.

The theory that emerged was logically based on verbal statements being falsified (Reason 1988, 16) by the analysis of the tangible and measurable data of the financial records. The theory that emerged from the grounded theory analysis of the data was: unless changes are made the organization could potentially be bankrupt and therefore cease to exist.

In the second part of the research the theory that emerged was not as simple. The theory that emerged was that if there is a need for community based infrastructure it can be
established through collaboration of community and government entities and the success of this will be determined by the application of good governance and clever use of available resources.

The cycle of change is a characteristic of action research. That cycle features in Zuber-Skerritt’s (2002) model depicted in Figure 3 which shows the relationship between the research, core research and thesis writing; and Figure 5 (Dick 2005) the relationship between action and research.

Zuber-Skerritt’s model provides a basis to explain processes leading to how grounded theory refines the observer’s data to develop theory to then be reduced to a written record. Dick’s model is more specific in scoping to pinpoint key issues in the development of knowledge and theory.

Dick’s model (Figure 5) could be adapted to depict percolation of the analyzed data that leads to the change and learning, and, learning leading to change. The critical reflection process is where the grounded theory is applied within the action research.

In the case of both organizations the gathered data was used to compile two complete histories. This had not been previously done and therefore there was no available knowledge in one volume of what took place and these have since benefitted others. This was not only those within the organizations, but also for others outside the organization seeking information.

**Figure 5: Critical Reflection and Grounded Theory**

*Adapted from: Dick 2005*

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**Collaboration**

Collaboration is a sub-process. There is a need in the collaboration to harness the efforts of co-researchers to link their work otherwise data, and consequentially knowledge, become disconnected and are not shared by researchers. Therefore there is a need to create alignment and attunement within the research team. The Process Enneagram (PE) was used to achieve this (Knowles, 2002). The process enneagram provides the intellectual ’thinking’ agenda, or a discussion map.
The collaboration in this research was consistently achieved through invitations to volunteers including past participants in the development of Organization B. The majority of the invitations were accepted. In the isolated case of the then New South Wales Department of Education and Training, important because of their critical involvement in the land and lease arrangements which helped to finance the infrastructure, there was no information or disclosure of the lease details. This demonstrated that collaboration is vital to the success of research. Without it data is not available and this critically impacts on what theory, knowledge and learning can be achieved from the research.

**Thesis Writing**

The process depicted in Part 3 is quite straightforward, though not without levels of stress. Although Zuber-Skerritt’s model (2002) doesn’t depict it, the results of the external examination in the case of students’ work can trigger a revisit to Part 1 to address new requirements, or complete certain aspects of the project and its reporting.

**Conclusion**

To be brief, this article has provided a link between the methodology and actual research work. It has also explained how the theory aspects can be addressed and developed. It is important to note that the notion of theory is different to that of the hard sciences and represents useful concepts (Mintzberg 2005) rather than claiming to be an objective truth. This does not prevent the theory from being effective as the knowledge associated with it is grounded in the data from the actual experiences of often ordinary everyday people.

Grounded theory is an effective qualitative research process particularly for topics that have human interaction at its core. Although the process is straightforward early career researchers can find themselves getting derailed, or stuck, along the journey. The models provided are easy to apply not only as a guide, but as a check list or research compass, and help that journey reach its destination.

**References**


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