CHAPTER 3

A rigorous journey into phenomenography: From a naturalistic inquirer standpoint

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Questions: A beginning

The journey into phenomenography began with three central questions about which I was curious: How do active researchers perceive of research? How does phenomenography really work? and Where does this approach to research fit, given my own research history or baggage? This chapter addresses the first question somewhat, but concentrates mostly on the latter two by retracing the phenomenographic journey involved in a three-year project focusing on researchers’ conceptions of what counts as successful research. The journey is retraced through the exploration of similarities to, and differences from, previous ways of researching and, in this way, sheds light on the latter questions. Given that there was a constant interplay (especially at the beginning) between my ‘research baggage’ (mainly related to naturalistic inquiry) and phenomenography, the chapter explores such variation. A comparative discussion seems appropriate given that phenomenography is founded on variation theory (see Marton & Booth, 1997) in which differences are used to highlight a range of ways of seeing. However, consideration of the three questions that sparked the journey is made prior to the presentation of the comparative exploration.

The first question pertains to the ways in which researchers perceive of research and is elaborated fully later in Chapter 9. This question arose out of an inherent interest grounded by more pragmatic views located in the match (or mismatch) between strategic goals (both governmental and university based) and actual perceptions, as well as the nature of the existing literature on research. A phenomenographic study of how researchers perceive of research seemed to
provide a possible way to break away from the textbook notions of what constitutes research. This was very enticing as for years I have listened to frustrated colleagues, both staff and research students, lamenting the dearth of honest, down to earth versions of what constitutes research and just how research proceeds, as well as what counts within the research journey. It seemed likely that research grounded in variation theory might expose some ideas beyond the notions contained within the general research literature. In turn it was hoped, by exposing a wider range of conceptions surrounding research, that the study might inform what is seen to count as successful research and extend how we view and value differences in terms of research practices and outcomes.

The question of how does, or rather how might, phenomenography work related to a much awaited journey into phenomenography. When the ‘right’ kind of research question arose that lent itself to phenomenography, there was opportunity to focus on this question of methodological workings. I was genuinely curious to work with phenomenographic inquiry in ways beyond the purely academic. I had engaged with phenomenography in terms of theory through my own reading, networks and research students, but had not worked on a study based on this approach. A key drawcard for me was the opportunity (and challenge) to explore phenomenography firsthand – in particular the experience of phenomenographic interviewing and that of team analysis. Both proved to be quite different from the interviewing styles and analysis techniques that I had utilised within naturalistic inquiry (and indeed all other approaches in which I have engaged).

Coming to the study with the research methodological baggage of a naturalistic inquirer meant that I was filled with further questions based on a previous way of working. For instance, while I trusted phenomenography as a significant methodology, I was accustomed to a strict list of strategies in the name of trustworthiness and these were suddenly irrelevant and non-applicable. I wondered about the issues of rigour. With no triangulation, how could one check data sources? Within only one method (interviewing), how could one be sure to gain all of the data needed to answer the question at hand? Without member checking (taking the data back to participants), how could one check the data? So many questions arose for me at the outset. While I could see beyond my ‘baggage’, it did cloud my thinking at times but also enabled me to look critically at the approach at hand and check for rigour.
Starting points: Crucial similarities

Research paradigms

While many questions highlighted differences between approaches there were similarities. In a sense, if the approaches had been too different in overall theoretical positioning, I perhaps would not have embarked on a phenomenographic journey at all. If the research paradigm or key underpinnings had differed significantly, theoretical shifts in terms of what counts as knowledge (epistemological issues) and how we know what we know (ontological issues) would have been too great. This was not the case as both approaches subscribe to an interpretivist stance. Such a stance is based on the notion of multiple realities. In other words, reality is neither singular nor fixed. Rather, realities are constructed from interpretations made as a consequence of interactions within the world. As I have noted elsewhere, such a theoretical stance assumes a subjective epistemology in which the transactions between the researcher and the research participants create understandings that are value-mediated or subjective (Green, 2002, p.6). The distinctions between epistemology and ontology are, thereby, blurred.

While both approaches fit within this theoretical position, the ways in which this is played out differs. For instance, while naturalistic inquiry focuses on the context of the research site as the key to meaning, phenomenography does not. Naturalistic inquiry is often bound up in investigations of individuals with respect to viewpoints, behaviour, discoursal practices, and so on. In order to make sense of such data, the context in which the research participants are located within that particular time, space and place is deconstructed (or at least taken into account). Not so in phenomenography. I wondered about this as for the most part I am interested in the individual. However, phenomenography does enable individuals to voice their perceptions of a given phenomenon, but undertakes the analysis in a way that goes across individuals and across contexts.

‘Bottom up’ processes: Grounded in data

Another similarity is the inductive nature of both research approaches. ‘Bottom up’ modes of working, or processes of induction, are utilised where interpretations or findings are grounded in the raw data. Rather than a ‘top down’ approach in which hypotheses are constructed and then tested (deduction), inductive processes start from
data collected in the field and move up conceptually. As data are analysed and re-analysed, ideas form, and findings arise from processes of induction. In this sense both research approaches discussed in this chapter reside in ways of working that are grounded in the data, and take the stance that being ‘true’ to the data means referring directly to raw data and using the meanings found in the text of the participants rather than applying concepts drawn from elsewhere. While naturalistic inquiry (Green, 2002; Lincoln & Guba, 1985) explicitly claims to be based on grounded theory (Glaser & Strauss, 1967), phenomenography does not. Yet there are similarities with respect to the ways in which data are analysed in that there is strict and constant reference back to the data, whether in the form of open coding (as in naturalistic inquiry), or in the development of categories through processes of iteration (phenomenography) of transcript analysis.

**Sampling**

Purposive sampling (Patton, 2002) or purposeful sampling (Lincoln & Guba, 1985) refers to the purposeful selection of a given sample. This is another similarity between the two approaches discussed here. Phenomenography aims to maximise the variation in ways of seeing and the choice of characteristics of the participants is driven by that goal. Thus, maximum variation sampling is used as a means to that end. While naturalistic inquiry uses purposive sampling, maximum variation sampling may be used, but equally an enquiry researcher might choose critical case sampling, or typical case sampling (Patton, 2002, pp.234–236).

**Outcomes**

An essential criterion for me in order to be positioned to engage with research pertains to the stance on outcomes. In developmental phenomenography (Bowden & Walsh, 2000), as opposed to pure phenomenography (Marton, 1986b), the research is designed with the intention that there will be practical outcomes. Implications for learning and for practice abound. The research is intended to inform and influence practice (as well as add to a body of knowledge). In other words, research is not conducted merely for its own sake, but rather to inform and improve practice. In order to be able to engage in research in a way that is highly motivated and focused, applicability is essential.
What counts is crucial

Given that some of the basic tenets of what counts for me as researcher in doing meaningful research (theoretical perspective, inductive processes grounded in data, applicability) were in place, I was positioned in such a way to cope with (though not always accept from the outset) the differences between the two approaches. I was most concerned about the essential aspect of rigour, but the further I continued on this journey of phenomenography, the more this concern dissipated. Before a close look at this issue, it seems appropriate to discuss the method of data collection, namely, interviewing followed by the processes of analysis.

Interviewing

Phenomenography uses interviewing as its primary means of data collection, unlike naturalistic inquiry that insists on at least three data collection methods. In our study of researchers’ perceptions of research, there was a team of five academics. We decided that, in order to maximise consistency in terms of questioning and the use of prompts, thereby minimising researcher impact on the data, the interviews ought to be conducted by one person. This became my task.

Although well experienced in the conduct of qualitative interviewing (from the open interview to the tightly structured – with a strong preference for the former rather than the latter), phenomenographic interviewing is a little different. The interviewer needs to avoid introducing new material that is not part of the planned interview structure for all interviews and cannot ask additional impromptu questions beyond those of prompts. That is certainly the practice of John Bowden, the experienced phenomenographer in our research team who has elaborated this view in detail in chapter 2. While it is acknowledged that the selected scenario does drive the interview and therefore the data yielded, the interviewer must take utmost care to avoid adding her own concepts or ideas to the interview in an unplanned way. Furthermore, the scenario presented must work to produce the kinds of data needed to address the focus of the research. Consequently, piloting is essential.

Preparing to interview

In the study at hand, I conducted three pilot interviews with colleagues who were not to be included in the sample. Prior to those
pilot interviews, John Bowden conducted the planned interview with me as interviewee. This provided valuable data from which I could focus on interviewer techniques. I then listened to the tapes over and over to consider and note methods of prompting as well as ways to facilitate contrasting comment without detracting from the rigorous data. This exercise yielded the following types of prompts or pointers that I then tried out within the pilot interviews.

**Seeking clarification:**
- ‘Tell me more about that …’
- ‘Describe that to me from start to end.’
- ‘Tell me how you felt about that …’

**Playing the naïve:**
- ‘What do you mean? I am not clear …’
- ‘Your substantive area is not my own and so there are some things here that I am not clear about. (e.g., You used the term ‘XXX’, can you define it for me.)’

**Exploring contradictions:**
- ‘It is interesting to me that earlier you noted that X was significant, but later you talked about Y. These seem to contradict each other. Can you tell me about that?’

**Piloting**

After this exercise in getting to know phenomenographic interviewing through active and critical listening, I conducted three pilot interviews that were audio taped and transcribed verbatim (as are phenomenographic interviews).

The original scenario put to the interviewees was as follows:

‘I am going to ask you to tell me about some research that you have been engaged in. The interview will be in two main parts.

First, I would ask you to tell me about some research that you have been engaged in that you view as being successful. Describe it to me from start to finish and tell me how you felt about it.

Second, I will ask you to tell me about some research that you have been engaged in that you view as being unsuccessful. Describe it to me from start to finish and tell me how you felt about it.’
The first pilot interview revealed that the scenario assumed that research could be clearly defined as either ‘successful’ or ‘unsuccessful’. This seemed far too simplistic and the interviewee struggled to contain his examples into one or the other categories. Thus, the scenario needed varying a little. I altered the scenario only slightly in terms of actual word change, but this made a massive difference in the kinds of data gained and in the ability of the interviewees to tell a story or two about research. The re-wording, or rather additional words, also enabled the interviewee to select, if need be, one instance of research and use it for both parts of the interview that focused on the nature of successful research. The change in wording was simply a move from the above to the following (differences shown in bold):

‘I am going to ask you to tell me about some research that you have been engaged in. The interview will be in two main parts.

First, I would ask you to tell me about some research that you have been engaged in that you view as being successful in some way. Describe it to me from start to finish and tell me how you felt about it.

Second, I will ask you to tell me about some research that you have been engaged in that you view as being unsuccessful in some way. Describe it to me from start to finish and tell me how you felt about it.’

Further, a third part was added to the latter part of the interview in order to maximise the opportunity for contrast and to enable the participant to elaborate on reasons for choices made and what such choices revealed about research. It also enabled the participant to clarify what had been said, to explain or reflect on any apparent contradictions, and to theorise where appropriate.

‘You have now told me about instances of research that you view as being successful in some way, and some that you view as being less successful in some way. Can you compare the instances and tell me why you selected them?’

The piloting also showed the need to resist attempts by interviewees to hear my view. The following strategies show some of the ways in which I tried to keep the interview on track:

*Resisting being caught up in opinion:*

‘I want your perceptions here. My view is not relevant here.”
While I am happy to talk with you later about my view, I would really rather focus on your view now.'

Getting back on track:
‘I don’t mean to be pushy, but I would like to hear more about …’
‘No, I don’t want an institutional (or a textbook) view here. I want your view.’
‘Thanks for that, but could we return to the scenario? Remember I asked you to tell me about …’

Recapping:
‘Can you tell me why you chose the first story of research to illustrate success?’
‘Can you recap the successful elements? The unsuccessful ones?’

Check for gaps:
Check to see that both feelings and descriptions have been provided, for example:
‘Thank you for describing the research in detail. Could I now ask you to go back and tell me how you felt about it?’

Allowing for theorising:
Allow for participants to theorise from their experiences where appropriate, for example:
‘What did that experience mean for you in terms of how you view success in research?’
‘How did it fit with your existing view?’
‘How did you theorise from that practical experience?’

The interviews
The actual research interviews were conducted within a slice of time. After the pilot phase, I interviewed regularly within a two to three month period dictated by issues of access. Twenty-four interviews with RMIT researchers (across disciplines, male and female, experienced and very experienced ‘active’ researchers) were conducted. The interviews were of about 40-60 minutes in duration, and transcribed verbatim. They were conducted in the location of the research participant’s choosing and at a time deemed convenient. Prior to each interview, information about the study was provided in the form of a plain language statement and a consent form was signed in keeping with the RMIT research ethics guidelines.

The interviews yielded pools of meaning across individuals with respect to what counts as ‘success’ in research. The participants told
their own stories, and reflected on what these stories meant for them personally and/or professionally. Some participants used the interview as an opportunity to theorise a little about their own views of research and of what counts as success for them.

Unlike naturalistic inquiry where follow up interviews are often used, phenomenography normally relies on one interview per participant. Certainly, that was how we conducted this project and there was no opportunity to go back to interviewees to clarify or extend data. Furthermore, there is no need to take the interview data back to participants for checking as the presentation of findings go beyond individual voices so much so that individuals need not worry about misrepresentation. No information is published that can identify an individual. Therefore, the sole interview is crucial as I have indicated earlier. In addition, the time period within the field for data collection purposes can be much shorter than that for naturalistic inquiry. Prolonged engagement in the field does not occur. This was the source of some anxiety on my part as I knew that if the interview did not yield useful, uncompromised data (that is, untarnished data – free of unnecessary researcher influence) the opportunity to gain the given participant’s view would be lost. If data are tainted by undue influence of the researcher, the research interview is discarded from that point in the transcript. Sometimes in phenomenographic research whole transcripts of tainted data are discarded. However, the time spent in preparation for the interview means that such worries diminished as the research proceeded, and that if due care is taken then the risk of losing data is much reduced.

Analysis: A team experience

As noted earlier, we conducted the analysis of the transcripts through team processes. Rather than work as individuals analysing data in a solitary way, we used team processes to derive categories of description from the transcripts. While each of us did read and re-read the transcripts many times away from the team, any decisions about how the categories should be formed, and the wording to be adopted as most appropriate, fell to the team.

John Bowden argues that the phenomenographic analysis should not begin until all of the interview transcripts are ready for reading as a whole. That is what we did in this project. This is quite different from naturalistic inquiry that centres on the emergent so that data are analysed all the way through and the emergent findings influence further data collection and therefore the overall research design.
Analysis is conducted by the individual researcher through the whole phase of data collection and again when all of the data are gathered.

Phenomenographic analysis relies on processes of reading and re-reading. For some, this prospect might seem daunting and indeed it is at the beginning when the data seem quite unfamiliar (even when one has done all of the interviewing!). The reading becomes more manageable as familiarity increases, but then the pressure on the researcher(s) to be even more diligent in their analysis grows further. It is essential that the researcher read and re-read (and re-read and so on) from the full set of data – from start to finish. The analysis is derived from a pool of meanings from which ways of conceptualising such meanings are gleaned. This is not a rapid process. In fact, it proved to be a very time consuming but fascinating activity. Commitment by the whole team to the task of analysis is sought at the beginning. It is not very productive nor consistent to have differential analysis teams just because some members cannot attend all meetings. For our study, the focus of success was analysed by a team of five; other foci that were taken up later, such as the conditions of research, and processes of research, were analysed by a team of four and three respectively.

The first attempt at developing a set of categories of description about what counts as successful research was a task that fell to me. This seemed to be an enormous endeavour at first as I felt obliged to derive a set of categories that worked. This was not to be. It was totally unrealistic.

Consequently, in hindsight, important advice for phenomenographic novices is that they should expect that the first attempt at building categories will not be ‘right’ but will rather provide a way into the data through which the categories can be revisited, and revised as part of the processes of iteration. The iterations, as onerous as they may seem from an outsider perspective, hold the key to meaning. They play a pivotal role in the development of our understanding of the meanings derived from the data pool.

The opportunity to work with a team of competent, critical and articulate researchers who varied with respect to methodological backgrounds, was both irresistible and challenging. Just how challenging the project would transpire to be was not predicted but well appreciated. We read and re-read data so much that our heads swam with complexities. The critical component of such team processes meant that we argued the point, left no stone unturned, grew weary with semantic play, discarded ungrounded descriptions, and shared in the joy and satisfaction when forms of clarity finally emerged.
The power of working within a team of academics who were committed to constructive but critical debate was undoubtedly the greatest strength of this approach. I am convinced that by working as a team we engaged in robust and, at times, potentially confronting discussion that moved us to develop rigorously considered categories. For instance, Nita Cherry tended to raise questions that ensured that we were explicit about why we were doing what we were doing under the umbrella of phenomenography. This meant that we needed to be explicit about the purpose behind our actions as well as the implications for rigour and for other methods. John Bowden frequently played, without orchestration but more through his own natural inclination, the role of devil’s advocate. This meant that we were frequently challenged to justify the ways in which we framed the categories. We had to go back to the data constantly and check for accuracy. Questions included:

 ’Where did this term come from?’ (avoiding the invention of new terms)
 ’What is missing?’ (searching for gaps)
 ’What else might this mean?’ (allowing for alternative meanings)
 ’What does this not mean?’ (looking for contradictory evidence)
 ’What do ‘unsuccessful’ notions mean for ‘successful’ ones?’ (using negative instance to show the positive)
 ’What is different about this category?’ (trying to maximise difference to find a coherent, consistent and focused category)
 ’How else might this be represented?’ (looking for another way to show the category – such as the use of grids and concept maps to show relationality).

These processes are based on loyalty to data. An illustrative example comes to mind. At one meeting, John Bowden literally jumped up with an idea and started mapping a new way of seeing one of the categories for success on a whiteboard. It made sense to us all and it looked like an appropriate way to summarise what we had discussed. In addition, I guess that it appealed to us at the end of a very long debate. However, thankfully we adhered to our agreed routine of checking systematically the key terms within the description, only to come to the realisation that in our enthusiasm we had totally reconstructed the category. Not only did we check the references that we had noted in the grids such as those below, but we read the wider context of the transcript – at times re-reading the entire transcript. The

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realisation struck that we had constructed a category in such a way that it bore little, if any, relationship to the data. Thus, the newly created version was discarded without further ado. We were even more convinced of the vital role of rigorous processes, such as checking the data continually. Without such mechanisms for checking, the findings would have been well and truly skewed in a way that made no sense, in terms of the data. If any of us had still held doubts about the approach in terms of rigour, such doubts disappeared after this event.

Checking back and forth to the data meant that the categories were very much grounded. Consideration of the possible relationality between categories is needed. Novices should not assume, as it is tempting to do, that phenomenographic categories are necessarily hierarchical. For phenomenographers like John Bowden, such relationships need to be represented in the way they are found in the transcript data rather than simply through some reflective, logical analysis by the researcher. We developed, after many months of team debate in the form of two-hour meetings interspersed by individual checking of the categories against the data, five categories of description. (See Appendix A: Table 8.)

The question arose as to how we would think and make informed decisions about the relationality between categories. There was no inherent hierarchy evident here. My inclination then was to assume that there were no relationships between the categories. However, the use of conceptual mapping based on transcript evidence revealed that there was a two pronged relationship among the categories. This was taken to the team for discussion and we re-drew the concept tree until we felt that we had exhausted possibilities sufficiently and that the mapping worked for the data. This was a new experience to me. Had I worked alone, I would have omitted this crucial aspect of the work. (See Appendix A.)

Looking back at the team, issues of trust were never far from the surface. For team processes to work there needs to be some agreement about ways of working, such as how to give critical feedback and how to handle putting yourself on the line with a new way of representing the data without fear of attack. Explicit talk about such issues can occur as the team becomes established in its ways of working, but these matters need to be noted at the outset and returned to throughout the project. There also needs to be compliance to agreed schedules of work so that momentum can continue.

While there are phenomenographers who work alone on their analysis, I would argue that a team option would normally be preferable. There was a high level of intellectual engagement, critique and rigorous checking of data within such team dynamics. The question of
rigour, for me, by the end of the research processes had been more than answered. I turn now to this issue at the close of the chapter as a means to reflect on the research journey and to emphasise that any early doubts or concerns had faded into history.

**Rigour**

What counts as rigour in phenomenography varied substantially from the fairly prescriptive list of trustworthiness criteria (credibility, transferability, dependability, confirmability) that is found within Lincoln and Guba’s (1985) seminal text. While space prohibits full discussion of these criteria one by one, I will elaborate on a few aspects for illustrative purposes. For instance, the strategies related to credibility, including those listed in the table shown below, are discussed in terms of relevance to phenomenography as we practised it in our project.

<table>
<thead>
<tr>
<th>Credibility (Green, 1995)</th>
<th>Relevance to our phenomenographic project</th>
</tr>
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<tbody>
<tr>
<td><strong>Prolonged engagement:</strong></td>
<td><em>Slice of time:</em> data collection in a confined period</td>
</tr>
<tr>
<td>Substantial time and involvement in the field</td>
<td>Context not relevant except in setting up the interview schedule and selecting participants</td>
</tr>
<tr>
<td>Context relevant</td>
<td></td>
</tr>
<tr>
<td><strong>Persistent observation:</strong></td>
<td><em>Not relevant</em></td>
</tr>
<tr>
<td>Relates to the above</td>
<td>Interviews sole data collection method</td>
</tr>
<tr>
<td>Looking for patterns</td>
<td></td>
</tr>
<tr>
<td><strong>Triangulation of data methods and of sources:</strong></td>
<td><em>Checking occurs through strict adherence to the data within the interview transcripts</em></td>
</tr>
<tr>
<td>For purposes of checking data and sources</td>
<td></td>
</tr>
<tr>
<td><strong>Peer debriefing:</strong></td>
<td><em>The role of critical peers is given a place within team analysis</em></td>
</tr>
<tr>
<td>Discussing the research with a critical but a disinterested peer</td>
<td></td>
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<tr>
<td>in order to keep the researcher honest</td>
<td></td>
</tr>
<tr>
<td><strong>Negative Case Analysis:</strong></td>
<td><em>This occurs through the checking of data and through the devil’s advocacy processes</em></td>
</tr>
<tr>
<td>Search for data that contradicts the findings</td>
<td></td>
</tr>
<tr>
<td><strong>Member checking:</strong></td>
<td><em>Inappropriate in that individual voices are not presented in the findings. Instead findings, in the form of categories of description supported by excerpts, go across individuals.</em></td>
</tr>
<tr>
<td>Taking the data back to participants for verification</td>
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</table>
While I have only outlined one of the four aspects of trustworthiness, it seems unnecessary to go any further. The rigour of our phenomenographic project lies in the following:

- preparation for interviewing
- open-ended but focused interviewing technique
- strategies to avoid as much as possible unplanned researcher impact during interviewing (e.g., prompts without adding a new concept, re-phrasing that does not alter the words of the interviewee)
- interviewing: strategies for consistency, discarding tainted data
- strict adherence to the data
- admitting to inconsistencies within transcripts rather than trying to constrain data to appear consistent: that is, refraining from squeezing people into categories
- going back to the data and reading the context, the exact phrasing and so on ...
- processes of re-reading and re-reading of the data as a whole
- the iterative nature of the development of categories
- the team processes: critical debate, devil’s advocacy, sum of the team being greater than the individual, peer debriefing
- presentation of data: categories of description, carefully considered relationality where relevant, illustrative excerpts from the transcripts.

What emerged from this phenomenographic journey was a strong conviction with respect to the rigour of the approach as well as a profound experiential base and a significant substantive outcome far in excess of the categories that arose out of the numerous iterations. This journey enabled me to add another methodological string to my bow or, in other words, extended my methodological repertoire. Consequently, when I need to find a way to answer a given problem or shed light on a problem at hand I have other ways to contemplate in terms of method. Opportunity for the use of phasing of various methodologies within one project or the use of mixed methods is now more available to me than previously.

At journey’s end

The question arises as to where was this naturalistic inquirer positioned at the end of the phenomenographic journey? While previously (even preciously so) aware of the methodological ‘baggage’ that
I brought to the project, by the end of the journey I had undergone something akin to a methodological conversion. My previous ways of working had been extended to ways anew, and my new passion and preferred mode of researching was located strongly and without apology in phenomenography – so rigorous was the journey.