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HOW TO WRITE A RESEARCH METHODOLOGY FOR AN UNDERGRADUATE DISSERTATION



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University of Huddersfield
2012

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Introduction

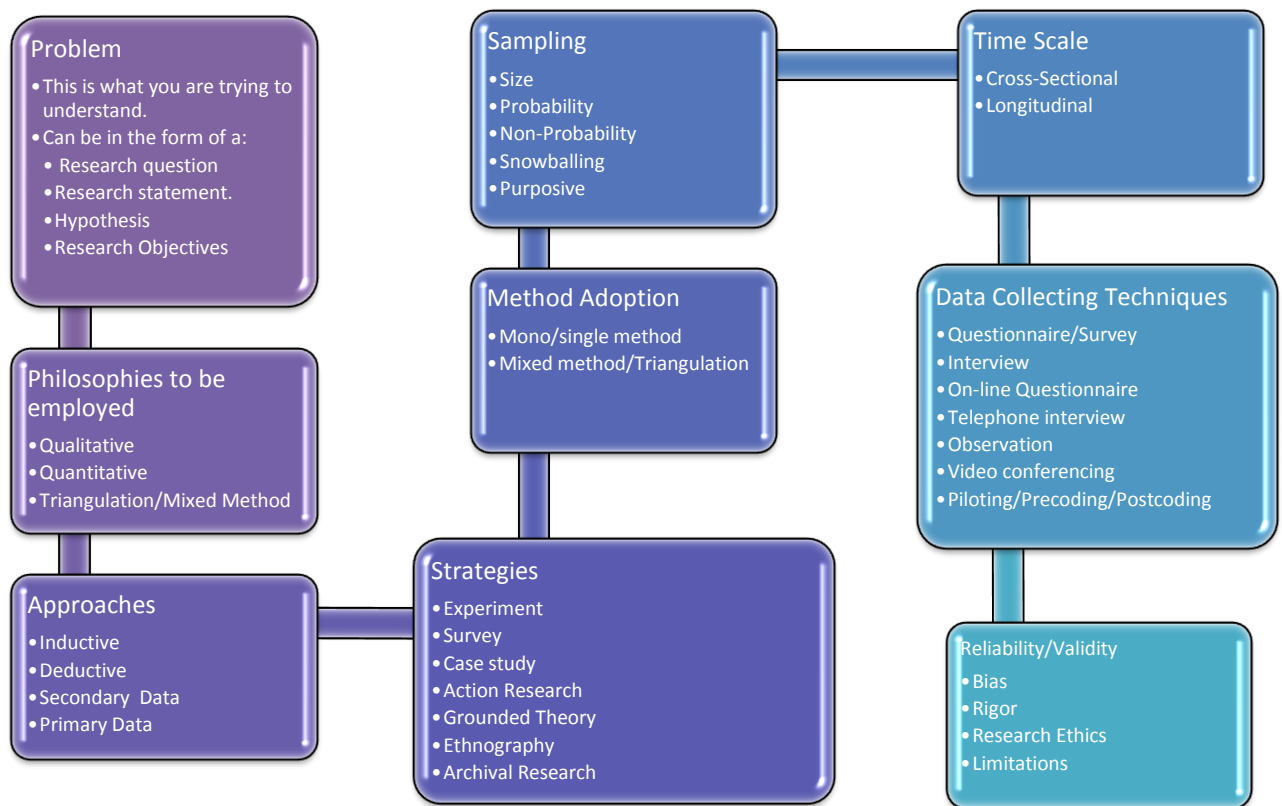
The marking criteria for the dissertation is likely to carry different weightings for the grading of this chapter in your dissertation thesis, to that of your research proposal (See Feather, 2010, on How to Write an Undergraduate Marketing Dissertation Proposal). For example, here at The Business School at the University of Huddersfield, there is more weighting given to the methodology in the proposal, than in the main dissertation. The reasoning behind this, is that, if you can get it right for the proposal, it should be straight forward when it comes to the research methodology chapter in the thesis, as you may be just changing it a little depending upon what has impacted on your research whilst you were undertaking the primary data collection, and writing up the various chapters of your thesis. Therefore, you may be in a position where you are simply tightening up your writing in line with your supervisor's comments, the feedback you received on this section in your proposal, and changing the pre-tense to the past-tense.

Having said this, in all my years of experience supervising and grading students' work, this chapter appears to be the weak link in the chain of writing for the undergraduate dissertation. Mainly, because it may be the first time that students have been introduced to such concepts of phenomenology, interpretivism, epistemology, feminism, action research, positivism and so on. These are very scary words to some students (Quinlan, 2011), but you should not be put off by these words, as it is these words, and the knowledge acquired by reading, understanding and applying these words that will make your work stand out, and possibly gain you those extra marks you feel you may need in order to meet your desired objective. That is, in obtaining a good grade for your dissertation that counts towards your degree classification. Some dissertations (at some institutions), are 40 credit modules, and therefore, are equivalent to two 20 credit modules. So it is important that you get this part right, as it is your plan of action, or, how you intend to undertake (pre-tense for the proposal), or have taken (past-tense for the dissertation), for your chosen research subject.

Where to Start

The hardest aspect of any academic work, or for a period of writing, is where to start. There are numerous books that you can read on how to conduct your research, but the hardest task is actually starting to write. What I do when faced with this situation is to just start writing, putting my thoughts down on paper – usually I end up throwing some of the work away, but at least I have started, and this is what I advise you to do. You can bring it all together when you know exactly what you are doing, and had the opportunity to have had a chat with your supervisor. However, when it comes to this particular chapter you will need to get yourself a couple of good reference books and start there. One of the books I tend to advise students to get hold of is ‘Research Methods for Business Students’ by Saunders et al. (2007). On page 132 of this text the authors have designed a research onion; it is an adaptation of Husserl’s Onion for Phenomenology (Moran and Mooney, 2002), and works quite well as an aide memoire. However, there are some aspects of this model that can be confusing to some students, and in places may not be correct. To this end I have produced a ‘Research Methodology Chain’ model (Fig. 1) below, that may be easier to follow and of more use; this, I have adapted from Saunders et al. (2007: p.132) research onion. We will now explore these different elements in a little more detail. It could also be used as a check list for you to ensure that you have the necessary elements needed in your methodology.

Fig. 1 The Research Methodology Chain



Problem

It is well worth here, restating what the problem, research question, and/or hypothesis of your research is, as this may not have been covered since the first part of your proposal in the first chapter in your thesis. It is also wise to reiterate what your objectives are, this is good practice, and will reinforce to both you and your reader what it is you are intending to measure and how they *fit* with your research statement/question (Quinlan, 2011). Remember, that your objectives should be both specific and measurable (think SMART), and should comprise of no less than five bullet points, and no more the six bullet points maximum. One point you *will* need to remember is that you will need to discuss the advantages and disadvantages for each approach/strategy you have chosen to adopt throughout your methodology.

Philosophies

Here we get to the scary bit, this is where many undergraduate students tend to switch off, because the words they encounter scare them (Quinlan, 2011). In fact, this is where undergraduate students should be **switching on**, as it is something completely new that they may be learning, and is useful both in business/marketing research and in academic research. Remember, at undergraduate level you do not need to be a master in these different philosophies, but a basic understanding will aid you in understanding how all the pieces of the jigsaw fit together. Many students miss these philosophies out and tend to approach this aspect of the methodology by stating that their research will simply be either qualitative or quantitative in nature. The better students will realize that the use of both approaches aids in offering rigor to their research (Robson, 2002; Saunders et al., 2007). However, the crunch comes, when your supervisor asks you, which qualitative or quantitative approach you have adopted for ‘your’ research. Therefore, you need to have a good working knowledge of the philosophies you intend to adopt for your research. In the methodology, you need to make it crystal clear to the reader which philosophy(ies) you are adopting, and why. That is, like a jigsaw, how the pieces fit together.



This is where those books I spoke of earlier will really come into good use. This however, may raise another problem, that is, you will be part of a large cohort, probably all searching frantically for the same books. Just because you are business students does not mean that you cannot look at education books or psychology books on research design – the philosophies are a constant no matter which subject you are studying. Moreover, it may work in your favour as you may obtain a different perspective, and will be seen, by your supervisor, as being more widely read. This brings me onto a further problem. Many students read books and journals, but if these texts say the same sort of things, students will discard the other books and journals and instead only reference one; the secret is to use them all. For example, interpretivism is looking at how people interpret their world and make sense of it (Cohen et al., 2000; Williams, 2000; Robson, 2002; Saunders et al., 2007). The other important aspect is that students tend not to offer the same diligence to this chapter as they may to their

literature review, or indeed, other chapters. However, as I have already said, the methodology chapter for many students appears to be the weak link in the dissertation chain.

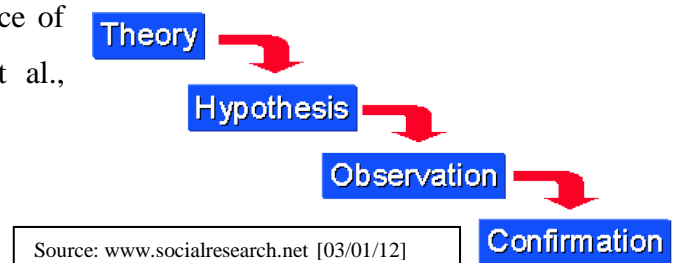
Having said this, you can elect to undertake a triangulation/mixed philosophical approach to your research. This is where you may use a number of philosophies to offer more academic rigor to your research, and of more reliability and validity to your findings. For example, you may elect to use the interpretivist philosophy with a realist philosophy, thereby offering both a qualitative and quantitative approach to your research. That is, by comparing what is viewed by those on how they interpret their world, and those who believe what is there, is what exists, or put into a layperson's term, is similar to 'wysiwyg' 'what you see is what you get', or, more basically, 'wysiwe' what you see is what exists.

Approaches

There two approaches in research that you can adopt for your research, one is 'inductive', and the second is 'deductive'.

Deductive

Here you become a detective, somewhat like Sherlock Holmes, looking purely at data (facts and figures), from a scientific perspective. Subsequently, you may come up with an idea(s), or build on an existing idea(s) from your readings, then like the model below depicts, you may or may not test a hypothesis, this will be largely dependent on whether you are undertaking a qualitative or quantitative piece of research (Cohen et al., 2000; Saunders et al., 2007).



Observation was introduced to the deductive approach by Francis Bacon in the 1600s as he felt that the deductive reasoning was not robust enough (Cohen et al., 2000). As Saunders et al. (2007, p.57) writes:

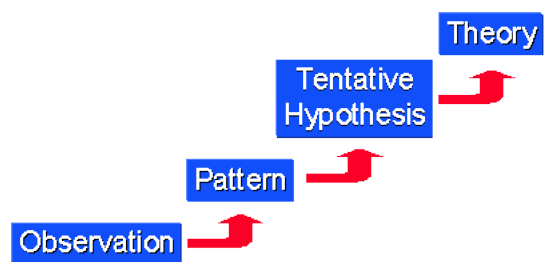
For some research projects, you will use the literature to help you identify theories and ideas that you will test using data. This is known as a **deductive approach** [emphasis in original], in which you develop a theoretical or conceptual framework, which you subsequently test, using data.

The testing of your hypothesis/theory via the use of statistical data is where you either confirm or, refute (reject) your hypothesis/theory.

Inductive

The inductive approach is where you undertake your research based around observations or an idea, and let the theory come out at the end of your research. On this, Saunders et al. (2007, p.57) writes that: “For other research projects you will be planning to explore your data and to develop theories from them that you will subsequently relate to the literature.”

This does not mean that you will not have a research question, aim or measurable objectives, you will, as you will still need a well-defined purpose to the research. It means that you will not start with a conceptual framework or a predetermined theory (Saunders et al., 2007), but it will be expected that you are well versed in the subject area that you have chosen. That is, you have read sufficiently wide enough to formulate a workable idea to research (See Quinlan, 2011, on



Source: www.socialresearch.net [03/01/12]

how to develop a research question). For example, your research theory could be built around the question, or tentative hypothesis of: “Is Direct Marketing Dead?” Here you will commence your reading, and put together a viewpoint from which to develop questions to put to people you have identified as key to your research in order to gather their opinions and ideas, and compare them with the secondary research you have already undertaken. Then, you can put forward a possible theory or solution to the tentative hypothesis you may have developed, that is, whether Direct Marketing is or is not dead.

Secondary Data

This is all the data you have access to, for example, reports, journals, books, textbooks, trade magazines, company websites, and many more. The key point to remember here is that they

have to be credible resources, as you wish for your research to offer good academic rigor. As such, Wikipedia is not deemed by academics as a credible source, as every day people can alter information on there. Wikipedia themselves acknowledge this, and would like more academics to be involved in updating their data. However, it is the biggest encyclopaedia online, and can be used as a launch pad to get a basic understanding of a term. Nevertheless, as I have said, this data then needs to be quantified against more traditional academic/rigorous sources. Secondary data is often referred to as ‘*explicit knowledge*’, that which everyone has access to – basically, it is in the public domain. Here you will need to say which secondary data you intend to view, and might I suggest, you then refer/signpost your reader to Chapter Two of your thesis where all this data has been put to good use. For example: “(See Chapter Two to gain a better understanding of how this secondary data has been used).

Primary Data

Do not worry here about repetitiveness too much; this is likely to occur in certain sections of your thesis, especially Chapters 1 and 3. Primary data is the knowledge you are intending to collect for your study, and may be referred to as ‘*tacit knowledge*’. That is, where the information is not in the public domain per se, but is instead, held (in the mind) by those you are targeting as your representative sample. The true meaning of tacit knowledge is that which cannot be codified or written down (Bhardwaj and Monin, 2006; Elton, 2010), but is learnt via observation and experience through trial and error. For this section, you will be mainly identifying what primary data is and why you intend to collect it.

Strategies

Having discussed your approach, you will now need to consider which strategy(ies) you might wish to adopt in order to undertake your research. As depicted in Fig.1 above, it can be seen that there are many strategies that could be employed to collect your primary data. You will need to make it quite clear why you have selected certain strategies and how they ***fit*** with your research (See Quinlan, 2011, on the concept of 'fit'). This again, (and I am sorry for using the dirty four letter word again), that you will have to ***read*** around these different strategies, and consider different authors’ views, so that, when it comes time for you to write

up your views, you can compare, contrast and critique them. Therefore, because you have read around them, because you understand the different philosophies and strategies, and more importantly, that now, you may be more comfortable with applying them to your own work. Any good quality textbook, or indeed, journal article will discuss the different strategies. However, in regard to journal articles, they tend to offer a more contemporary viewpoint, whereas textbooks give a good all-round viewpoint (Aunger, 1995; Cohen et al., 2000; Oppenheim, 2001; Smeyers, 2001; Amaratunga et al., 2002; Robson, 2002; Silverman, 2002; Creswell, 2003; de Vaus, 2003; Ryan and Bernard, 2003; Easterby-Smith et al., 2004; Bordens and Abbott, 2005; Saunders et al., 2007; Bryman, 2008; Quinlan, 2011). These different sources do not even scratch the surface of what is out there, or may be available in your individual institutions libraries, so get onto your library catalogue and look up books and journals connected with research design. You may also wish to visit <http://onlineqda.hud.ac.uk/>, which will also give you more information on the different philosophies and research methods you can employ in your research design. Remember, you will need to discuss the advantages and disadvantages of the strategies/tactics you intend to employ in your research.

Method Adoption

As discussed within the philosophies section, you can have a mono or mixed-method approach to your method adoption. That is, whether you will be adopting either a qualitative or quantitative approach to your research or both. Here you will need to think carefully about what it is you are intending to research. For example, if you are fact-finding or simply undertaking observations of what people do, and counting how many times, they are doing it, this would be a quantitative approach, fitting with the positivist school of thought. However, if you are seeking peoples' opinions via the use of interviews and open-ended questions, via face-to-face interviews or a semi- or unstructured questionnaire, or whatever strategy you employ, this will be a qualitative approach. There is nothing wrong in adopting a singular approach.

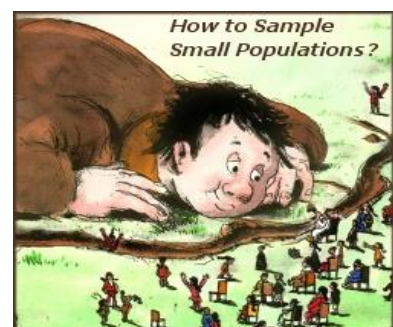
From the above, you can see that there are two schools of thought – those from a positivistic or quantitative view, and those from an interpretivist/phenomenological or qualitative view. Some researchers in either of these schools cannot agree that the other has something to offer,

and there is a huge amount of material on this. See the extensive reference list I have provided in the previous section, in particular look at Aunger (1995); Robson (2002) and Amaratunga et al. (2002). Nevertheless, you will need to evidence in your writing that you have a good grasp of the differences between these two approaches/schools, and again evidence the advantages and disadvantages of using each approach.

Some authors such as (Cohen et al., 2000; Robson, 2002; Saunders et al., 2007) would argue that it is better to adopt a triangulated approach (as already highlighted, some authors refer to this as a ‘mixed-method’ approach), to your research methods, for example, maybe using semi-structured interviews and structured questionnaires and/or focus groups. Again, you will need to decide which you are going to use and why, and discuss how they **fit** with your research (Quinlan, 2011). As discussed in the philosophies section, this may offer academic rigor, validity and reliability to your research (Robson, 2002). Whatever you elect to employ for your research, you will need to make it quite clear to the reader why you have chosen this approach, and why you have not selected other approaches – that is, why you rejected them.

Sampling

This is one of the key sections in the methodology that you will need to pay particular attention to; as you will need to make it explicitly clear how you selected your sample population. If you were to sample the whole population, that would be called a ‘census’ (Saunders et al., 2007). However, it is highly unlikely that you are going to do this, as it would probably be logistically impossible in the timeframe you have for your study at undergraduate level. It could also be largely dependent on what your sample size consists of. For example, if you are researching views from the top 6 people in your chosen area, and these are the only people in the entire UK in this field of expertise, this would comprise of a census of the leading minds in that area.



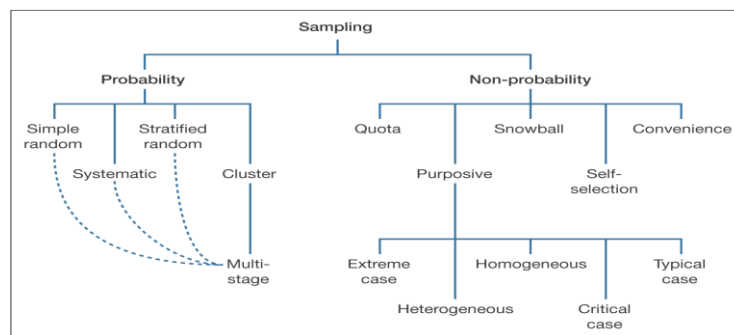
Source: <http://actuary-info.blogspot.com> [06/01/2012]

Saunders et al. (2007, p.204) writes:

Sampling [emphasis in original] techniques provide a range of methods that enable you to reduce the amount of data you need to collect by considering only data from a subgroup rather than all possible cases or *elements* [emphasis in original]...[a] full set of cases from which a sample is taken is called the **population** [emphasis in original].

Therefore, your sample will need to be what is commonly termed a ‘*representative sample*’ of your target population. As depicted in Fig. 2 there are various ways of selecting your sample from the total population, for example, you could use probability sampling, simple random, stratified random, non-probability sampling, purposive sampling, snowball sampling (Saunders et al., 2007).

Figure 2. Sampling Techniques



Reproduced with permission: Saunders et al. (2007, p.207)

What needs to be remembered here, is that to use ‘probability sampling, you will need to have access to a full list of the target population, as the methods under this heading use such techniques as a lottery – think of the ‘national lottery’, and this is what they (authors) are referring to. What this means is that every person has an equal chance of been drawn from the population. Another probability sampling technique is to use a percentage margin of error approach; lists that you can usually find in the back of most statistic books. Non-probability sampling is used when you do not have lists, and as such, you have to make a judgment about the sample you are going to collect. This can be done by looking at certain characteristics such as age, gender, ethnicity and other elements, but you will need to ensure that you capture people in each element and that they each category you are sampling is represented.

Having decided on how you are going to select your sample, you will then need to consider the size of your sample. Here in the Strategy and Marketing Department of the Business School at the University of Huddersfield, we recommend to our students that they try to collect 100 completed questionnaires, and undertake 8-10 interviews. However, these are only guidelines for the undergraduates, and as such may change, especially concerning the philosophy and method employed in the research. For example, if the research were purely based on questionnaire collection, we would expect more completed questionnaires. If solely undertaking interviews, we might expect to see a focus group undertaken in addition to the 8-10 interviews. However, we tend to encourage a triangulated/mixed-method approach, as this will give students a better experience of undertaking research, and ground them in the skills they will need to employ when they get into their respective jobs.

Once more, you will need to explain why you chosen a particular sampling strategy, and the advantages and disadvantages of using the strategy (ies) adopted. Read various authors works on this (Cohen et al., 2000; Robson, 2002; Creswell, 2003; de Vaus, 2003; Easterby-Smith et al., 2004; Bordens and Abbott, 2005; Saunders et al., 2007), to name but a few.

Time Scale

This falls into two realms, that on longitudinal and cross-sectional. Longitudinal studies can take the whole lifetime of a researcher, for example, Husserl, and Heidegger when studying phenomenology, or a more up-to-date name you may recognise, that of Professor Stephen Hawking.

Cross-sectional research is about the researcher taking a 'snapshot' in time. Many undergraduate studies may fall into this approach. This is mainly because you will have less than one full academic year in which to complete and submit your dissertation. As such, the primary data usually starts to be collected in the last few weeks of term one, or the beginning of term two. Some students start later, but they should be aware that if they do this, they do not leave themselves much time for analysis and writing up of the findings (Chapter 4) and

discussion (Chapter 5) chapters, and ultimately the conclusions and recommendations chapter (Chapter 6).

In addition to the above, a Gantt chart outlining the points in time where one activity starts and another finishes (See Fig. 3).

Fig. 3 Example of Gantt Chart taken from Feather (2010, p.13)



Source: Hilton, K. (2008)

When looking at this Gantt, and in particular the literature review section, one would envisage that the review would commence in September and not concluded until March as the literature may need to be updated as new material is released.

Data Collecting Techniques

There are various data collecting techniques that can be employed. The most common one is that of the survey/questionnaire. What needs to be realised here is that the questionnaire comes three formats – totally structured; semi-structured and unstructured. Totally structured questionnaires are those that have no open-ended questions, and comprise of ‘Likert scaling’ questions, yes/no questions, and opinion questions; to name but three.

I often say to my students that a questionnaire cannot be designed in the time it takes to drink a cup of coffee and eat a couple of chocolate digestives. A lot of thought and effort needs to go into its design. This research tool has to collect data that will help answer the research objectives you set in your first chapter, and repeated at the beginning of the chapter for the methodology. As such it needs to be structured in the way it appears, that is, that the questions follow on naturally, and that the questionnaire is unambiguous to the read, that there is no leading questions, or any bias has crept in, and that it is easy to complete, and easy on the eye. This is why it so very important to *pilot* the questionnaire first. One never, never goes and collects primary data without first piloting their questionnaire to ascertain if it is working, that is, everything I have said above – no leading questions, devoid of bias, easy to complete, and *coded*.

What do I mean by ‘coded’? The questions on the questionnaire need to be either pre-coded or post-coded. Pre-coding is where you can code a question because it is not an open question. For example, it may appear as such:

Fig. 4 Example of pre-coding

<p>Q1. Please indicate your gender (Tick one box only):</p> <p>Female <input type="checkbox"/>₁ Male <input type="checkbox"/>₂</p> <p>Q2. At your last birthday, in which bracket would your age fall. (Tick one box only)</p> <p>18 – 24 <input type="checkbox"/>₁ 25 - 31 <input type="checkbox"/>₂ 32- 38 <input type="checkbox"/>₃ and so on</p>
--

Notice from the example, how at the end of the tick box there is a small number. This number is for your purposes when you are setting up PASW (the old SPSS). Remember, PASW works on numerical data, and once set up correctly, can display that numerical data as the label, for example, will change the 1 to read as female and 2 as male. In addition, notice the layout and how it may be a little easier on the eye by breaking the text up a little, and by adding colour in the form of instructions. This colour used throughout the questionnaire will condition your responder that blue is instructions, and black is the questions.

The above is fine for a paper-based questionnaire, but today, we tend to use online programmes such as ‘Survey Monkey’, Google Docs’, and ‘Survey Builder’. However, be

Careful with some software programmes or providers, as they tend to have limitations, for example, Survey Monkey will only allow you to receive a set number of responses before you have to start paying for them. Whereas Google Docs, are free, and they provided you with a 'link' when your questionnaire is completed. You can then email this out for people to complete, or put it on such sites as 'Face Book' or 'Twitter'; some people join a specialist group on 'LinkedIn' and place an electronic version of their questionnaire there for completion. Having said this, the electronic questionnaire will not be pre-coded or post-coded you may have to do this when you enter the data into PASW (SPSS). However, as the data is on a spreadsheet, this should not be a difficult task. Nevertheless, pre-coding and post-coding are important and you will need to discuss these in your methodology, when discussing questionnaire design.

Finally, you will need to ensure that your questionnaire carries an ethical statement that indicates who you are, why you are doing the research, what you will get out of it, and how you are going to protect the respondents rights, that is anonymity and other rights. In research, we refer to this as 'informed consent'.

If you are undertaking a paper-based questionnaire, the same process is undertaken, but a letter asking for informed consent, usually accompanies the questionnaire. Examples of informed consent letters/forms can be found in Robson's book entitled: '*Real World Research*'.

Interview schedules

The same approach you adopt for your questionnaire needs to be employed here. However, it will be somewhat different. For example, you will not pre-code any questions, although, with a semi-structured interview there may be opportunities for you to do this. However, the purpose of an interview is to gain a deeper understanding around some of the topics on your questionnaire, thus allowing you to compare and contrast the findings from the qualitative with the quantitative data. This in turn may offer more reliability, validity and rigor to your research. As such, interviews tend to be designed to be more flexible, so that the researcher as

the freedom to explore any interesting topic/subject that the interviewee may raise whilst being interviewed. See Fig. 5 below for example.

Fig. 5 Example of statement for informed consent and Interview Schedule

Ed.D. Programme	Denia Feather
Outline Interview Schedule	
Read before Taping:	
Introduction:	
<p>The questions below constitute a provisional framework, and the interview will be semi-structured in nature. As such I expect to pursue any unanticipated issues that arise during the process.</p> <p>The purpose of this study is to look at the perceptions of lecturers delivering HE programmes in Further Education Institutions as to whether or not they perceive themselves to be academics.</p> <p>Permission has been given by the Principal of the College to approach lecturers to gain their insights and opinions on this subject matter, and I must stress that both you and the college will remain totally anonymous in any written reports growing out of the study, and your responses will be treated in the strictest confidence.</p> <p>Having said all this, may I have your permission to tape-record the interview, as it will aid in terms of speed, efficiency, and ensuring your responses are accurately recorded and transcribed. I will hand the tape-recorder to you, and if at any time you feel uncomfortable with the interview, please feel free to switch the recorder off. Also, please feel free at any time to interrupt the interview, and ask for clarification of a question or to criticize a line of questioning. Do you understand the ethics of this research?</p>	
Main Questions	Notes and Follow up Questions
<p>Q1. Thank you for agreeing to meet me and to be interviewed. To get the interview started can you please tell me how many years teaching at FE level you have?</p>	<p>If less than one year, what was their occupation before teaching in FE?</p> <p>Ask to elaborate</p>
<p>Q2. How many years teaching experience do you have at HE level?</p>	
<p>Q3. Do you have any management responsibility?</p>	<p>If yes, what is your level, e.g. pathway leader, course director?</p> <p>If no, ask the respondent to explain their role in HE.</p>
<p>Q4. What are the subject areas you teaching in?</p>	<p>If they give just one area ascertain if they are allowed to specialise.</p>
<p>Q5. From the following list, please rank in order what you see as your main role:</p> <ul style="list-style-type: none"> • Teaching • Researching • Managing • Administration • Writing for publications • Networking 	<p>Read through list first, then read again so that respondent can rank them as they are being read.</p>
1	

Source (Feather, 2009, p.262)

You can also use this schedule to write any additional information on, that is, make notes, as the interviewee never sees this piece of paper; it is your aide memoir for when it comes to transcribing. Therefore, you can write observations down, such as, when they laugh, how long a pause they take before answering, any gesticulation they may make; that is, with their arms or hands. For example, when I asked one of my interviewees to define professionalism,

he raised both his arms into the air, looked to the ceiling and almost shouted the words “Oh my God...No!” (Feather, 2009, p.194).

Like the questionnaire the interviewee schedule needs piloting, but this will be largely be governed by how many people you intend to interview, and the size of your sample. This is where your supervisor can be invaluable. As they will have undertaken interviews for their own research, and should therefore be able to offer you a real insight into the practicalities from their own experiences. That is, how you have structured the schedule, whether the questions are likely to gather information for you to answer your set research objectives, whether they are leading questions, or ambiguous, and in relation to the wording of the questions.

Focus groups

As with interviews, the same format and procedures are followed in terms of developing the schedule for focus groups. However, focus groups can be extremely difficult to control, and as such, they require a lot of skill on the part of the interviewer (Cohen et al., 2000; Robson, 2002; Saunders et al., 2007). The ideal size of a focus group is between 6-10 people (Saunders et al., 2007), but I would recommend taking someone with you to sit outside the group and take notes on the groups body language, the setting, and any interesting point the group may raise. Obviously, you will need to brief your observer(s) as to what it is you are looking for, and on what to pay special attention to when taking notes. This then will free you up to listen intently to what is being said and to notice any signals the group may be giving off.

Observations

This is a very useful and under used technique employed by many students. There are two camps that observations fall into ‘participatory’ or ‘non-participatory’. If we take non-participatory observation first, this is where you do not tell the people you are going to observe, that you are observing them. This can be termed covert observation, for example, you may sit yourself in the library or canteen, and start writing. After few minutes, the people around you will forget you are there, or just deem you another student writing up some notes.

When in fact, you are taking notes on their body language, behaviour towards one another and other people, gestures, and any social norms and values that may become apparent, may be even what they are saying (only if relevant to your study). You may even make sketches of the environment, or make notes of the lighting, weather and so. This is known as offering a ‘thick description’ of what is occurring (Glaser and Strauss, 1999). At the other end of the spectrum is the over observation, or participatory observation. Here the person could merge themselves in the culture to fully understand that culture’s social norms and values, and could take many years (Spradley, 1979). However, as undergraduate students or indeed masters’ students, it is unlikely that this would be an option for you. Therefore, you are more likely to employ ‘moderate participation’ where you let them know that you are going to be observing them, and get involved to some degree in what is going on. The problem here is that people may alter their behaviour because they know they are being observed. Observation is also an ethical dilemma, because if you do not tell the people that they are being observed, this could be deemed unethical, whereas, the moderate participative style is seen to be more ethical, as you will have informed the people going to be observed what it is you are doing.

There are other data gathering techniques and you should make yourself fully conversant with what is available; you will also need to ensure that you discuss why you are choosing one method over another. Further, you will need to identify the advantages and disadvantages of using the method you have selected.

Rigor

This is an important factor in any research, and you will need to evidence that you have incorporated this into your own research. It is, the quality of logic you have incorporated into your research design, from which you can confidently draw reliable conclusions. Rolfe (2006, p.305) writes “Together...verification strategies incrementally and interactively contribute to and build reliability and validity, thus ensuring rigor...Rigor is clearly the key to success.” However, what must be remembered is that most of the writing on this refers to the scientific approach, which normally falls under the remit of positivism and the quantitative approaches. However, concerning the qualitative approach, the logical scientific approach should still be considered, but as Rolfe (2006) argues, it is down to the researcher to ensure methodological rigour, but also, that the reader should also be allowed to judge the trustworthiness of the research, when examining the dissertation, article, or report.

Ethics

This is a very important part of your methodology, because it is here that you will identify your ethical stance in your research. That is, the preservation of both the participants' rights, but also those of the researcher. The British Education Research Association (BERA, 2004) writes that:

The Association considers that educational researchers should operate within an ethic of respect for any persons involved directly or indirectly in the research, they are undertaking, regardless of age, sex, race, religion, political beliefs and lifestyle or any other significant difference between such persons and the researchers themselves or other participants in the research. (BERA, 2004, p.6)

BERA (2004) further identify that the intended participants must be fully aware why they have been asked to take part in the research, what the research is about, and to whom it is to be reported. You must therefore gain what is termed 'informed consent', and this must be gained before you commence with the research with the intend participants. Your own institution where you are studying will have its own research ethics committee and as such, 'an ethical code of research practices'.

The University of Huddersfield Research Ethics Committee stipulate that:

At the heart of all research, regardless of discipline, is the need for researchers to be honest in respect of their own actions in research and in their responses to the actions of others. This applies to the whole range of work, including experimental design, generating and analysing data, publishing results and acknowledging the direct and indirect contributions of colleagues, collaborators and others. All researchers must refrain from plagiarism, piracy or the fabrication of results. In the case of employees, committing any of these actions is regarded as a serious disciplinary offence. (Huddersfield University Ethics Committee, 2005, p.2)

They go on to write that: "Where available, the University expects researchers to observe the standards of good practice set out in guidelines published by relevant societies and professional bodies" (Huddersfield University Ethics Committee, 2005, p.2). You need to ensure that you are fully conversant with these and other professional guidelines on research ethics, as it is your responsibility to ensure that you are complying with these guidelines so as not to infringe any human rights, for example, that your research will not cause any physiological or psychological harm to the participants.

Limitations

These are factors, which you perceive may affect your research and thus limit your ability to conduct research thoroughly. For example, time, access to various people, self-funded, illness, and any other factor that you perceive could stop you conducting your research, or interfere with your collection of data for your research. Usually, these limitations are those that appeared in your research proposal and are re-stated here. In your analysis chapter of your dissertation, you would have a final section entitled ‘limitations’, where you would list all those factors that have *actually* affected you whilst undertaking your research.

Conclusion

From the above, I have endeavoured to take you through, what I deem to be one of the major weak links in the research chain – that of the research methodology chapter. It is this chapter where many students fall down, primarily because they come across words they may not have heard of before. Nevertheless, you will need to evidence a basic understanding of the philosophies employed in the research methodology, and a thorough understanding of the different research techniques that can be employed, and more importantly, how they fit with your individual piece of research. It is imperative that you apply the same attention to detail in this chapter and others, as you do in your literature review.

I hope you find this article of some use, and wish you every success with the writing of your dissertation.

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