PREPARING YOUR DISSERTATION

1. INTRODUCTION
This set of notes covers a wide range of approaches to writing a masters dissertation. It is intended to be a resource and not a prescription. The format and production of your dissertation is a matter of discussion between you and your supervisor and finally your choice.
The topics covered in these notes include:

- developing a thesis, including background perspectives, literature survey and focal theory;
- case study research;
- qualitative and quantitative aspects;
- data collection;
- data analysis and presentation;
- conclusions and recommendations.

2. APPROACHING RESEARCH
There are three important features to be considered in preparing a masters dissertation in management studies:

Firstly, it is the final stage of a considerable learning process and should always reflect the learning that has led up to it. A great danger is that dissertation authors go native during their dissertation projects and forget the academic disciplines that have been carefully nurtured in the preceding modules.

Secondly, the report is almost always based on action research. That is an enquiry focusing on a real issue or problem, probably current. This involves fieldwork and the collection of data in a variety of forms (documentary, questionnaires, interviews and observation). Ideally the research is directed at finding a solution to a problem or an insight into an issue that will lead directly to action and a change in direction.

Thirdly, the dissertation project usually has to satisfy two clients,

a) the manager in a company or organisation who commissions the report (often this is the author’s immediate boss).

b) the supervisor (representing the university) who requires that the final written report satisfies the learning outcomes required in order to fulfil the degree requirements.

Usually both clients are satisfied without any problem. When a difficulty arises it can usually be solved by the supervisor. It should be remembered that the relationship with the supervisor is paramount in securing a satisfactory outcome and that regular contact and good communications are essential.
When considering a topic it is better to have more than one at the outset. Good dissertation topics can fall foul of events. Flexibility is essential. It is also important to identify the true nature of the investigation and to seek out the real managerial issue. Focusing on the big idea and bringing it within range of one’s ability to manage the project is vital. Here the advise of the supervisor is invaluable since too much data or a plan that will involve the collection of too much data can stretch the resources of the best candidates.

Scheduling and planning are critical. The project always has a finite timeframe to meet the needs of both clients. The company requires an answer and the university has an examination board.

Figure 1, below, sets out a proposed structure for a dissertation. In the following sections a detailed examination/discussion of each chapter/section is presented.

Figure 1 : Key Sections in a Dissertation

<table>
<thead>
<tr>
<th>KEY SECTIONS/CHAPTERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Introduction: say what you’re going to say, chapter by chapter and summarise your conclusions and recommendations - both operational and theoretical. You can only do this accurately when the dissertation is complete so write it last of all.</td>
</tr>
<tr>
<td>2) Background: this effectively tells the story of the issue/problem. You should write the first draft of this chapter as your first task.</td>
</tr>
<tr>
<td>3) Literature Review: this relates your perceptions of the issue, as set out in the background chapter to those of other established authors. You should use writers on management theory and on practice in the industry sector comparing their ideas with your own.</td>
</tr>
<tr>
<td>4) Focal theory: here you should select one (or two) theoretical models which help you analyse and explain the data you have collected. You should also include a brief methodology/rational about why and how you collected your data.</td>
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<tr>
<td>5) Presentation of the data: the real story of the issue(s).</td>
</tr>
<tr>
<td>6) Analysis: a point by point (or deconstruction) comparison and analysis of your data using your theoretical model as the framework for the analysis.</td>
</tr>
<tr>
<td>7) Conclusions and recommendations: essentially saying what you’ve said not forgetting the theoretical aspects as well as the operational. This chapter requires great care to ensure that your comments stand rigorous scrutiny.</td>
</tr>
<tr>
<td>8) Bibliography and Appendices (note appendices should contain the detail that is not required in the main text).</td>
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3. DEVELOPING A THESIS
There are three stages to developing a thesis. The first is the statement of the issue or the problem under investigation from your own perception set out in the Background chapter or section. Thus tells the author’s story. The second stage is the literature review in which begins to extend the thesis by noting, reflecting and commenting on what has been written by others, including some of the leading thinkers that may have already been studied. Finally comes the Focal Theory stage in which the author may select an established theory or paradigm as a framework for analysis of the data.

The three stages should be an iterative process in which the background, the literature review and the focal theory play a part in refining the author’s perception of the problem leading, hopefully, to a better operationalisation of the thesis in the data collection phase of the project. The interplay of the thought processes in each section can lead to a better formulation of the big idea or thesis.

Figure 2: Creating the Thesis

Focusing on the Background

It’s a good idea to write this section first since it is really a straight forward account of nature of the issue or problem under investigation. It should set the context of the study, explain the circumstances, identify the players and give some of the relevant history - in fact include anything that makes the story clearer to the reader (but contain the length).

This section is important in the development of the thesis because it can focus the author’s thinking on the real managerial issues. It is when the story is first set down in written form that the real issues emerges. A case that at first appeared to be about the introduction of a new information system may in fact be identified as a management of change problem in an information system context. It is at this stage that a good working relationship with supervisor really pays dividends since together author and supervisor may debate the real nature of the problem and identify the relevant literature and focal theory.

This section or chapter is relatively easy to write, since it is basically a story. It is psychologically important in so much as when the background has been written down, even if there are later changes, the dissertation is really underway.
The Literature Review

The boundaries of the literature review are really indefinable since in some areas of research the amount of written material is enormous and in others rather small. Common sense must apply.

The purpose of the literature review is to support and expand upon the story set out in the background chapter. The story is enriched by a reflective and evaluative account of what others have written about the issue/problem. There are two aspects to the review; firstly, the descriptions of others regarding the operational aspects of the issue/problem being researched; and secondly, the theoretical aspects. Selecting the latter depends upon the correct identification of the managerial issues involved. Associating the problem under investigation with an established field of published thought helps to lend legitimacy to the investigation.

Identifying the content of a literature review is essentially a tracking procedure. There are essentially two sources; academic journals and books; and industry sector of professional journals. The former will focus mainly on the theory or general concepts concerning the issue/problem; the latter upon operational, case study and anecdotal material.

The starting point for the academic sources will be the literature already identified in the relevant modules of the masters course. Key texts will have further references opening up a whole network of possibly useful material. A larger network may be accessed via the on-line databases for literature search available in all university libraries.

The operational material will normally be found within the archives of the organisation sponsoring the research and trade and professional journals.

The literature review is an essential part of the iterations that form the creative process of the thesis generation. It reflects upon the learning that has taken place which in turn supports the learning that will take place during the course of the research. This process needs to be recorded in the literature review.

The following annotated extract (figure 3) from a literature review chapter (McEvoi-Williams 1995:30-31) demonstrates the nature and style of the developing argument.

Figure 3: Extract from a Literature Survey

“There is nothing permanent except change”, says Heraclitus the Greek philosopher. Change is an ever greater reality in contemporary life; it is occurring at an accelerated pace and the human nervous system has difficulty accepting the rate of change that
exist in the Western culture (Tofler, 1970).

“Change is about achieving a future desired set of affairs. In part, it is the act of crystal-ball gazing, looking into the future to predict what will be the context in which organisations and individuals exist” (Wilson et al 1990:242)

The concept of change, therefore, is elusive.

Given the on-going developments in science and technology and the subsequent, massive impact of social, economic, technological, political and legal factors on the modern world, there is no likelihood of slowing the pace of change. Change is an ever-present feature of organisational life and the challenge for today’s managers is to learn to manage it. According to Odiorne (1981:10), “there is no one way we can learn to adapt without learning how to manage it.”

This implies a need for management by anticipation, I contrast to unplanned, unmanaged, chaotic change. This view is further supported by Plant (1987) who states that managing change is the key to making it stick.

Consequently, the issue of change management is not marginal or unimportant. Indeed if organisations are to change in the radical manner envisaged by some contemporary writes (Peters and Waterman, 1982; Kanter, 1989; Handy, 1989), then the management of change, both incremental and radical, will arguably be one of the key factors in sustaining organisational success in today’s turbulent world.

In the excerpt above the author opens with a very general point about the nature of change and moves to thinkers on the management of change. Later she reviews what various authors have said about specific aspects of change management including the theoretical foundations. She considers the basic schools of thought; the change models; the phases of change; change agents and finally the change process. The references are set out according to the so called Harvard Protocol that is the name of the author with the date of the publication plus the page number if a direct quote is made. The full details of the author(s) including title of the work referenced, the publisher, place and date are recorded in the bibliography. (note: the bibliography at the end of these notes is set out according to the rules of the American Psychology Association, a very exact set of rules that is the norm for most serious academic journals).

The author uses various levels of reference. She opens, A, with a famous quotation, which she does not reference. Given the provenance of this quotation this is a forgivable fault. Later she uses very general references, type B. Here a very general non-specific mention is made to well known authors who have written about the management of change. The next level, C, reports a summary or paraphrase of an author’s views. The most specific reference is type D, where a direct quote is made. In this case the page number of the quote is added.
The literature survey should carry the argument on to the focal theory.

**The Focal Theory**

The presentation of the theoretical model or paradigm that forms the focal theory should not come as a complete surprise. The arguments presented in the background and literature review chapters should lead the reader to expect the final definition of the analytical position.

A focal theory at Masters level is commonly the adoption and/or adaptation of an existing theory that is quite well established in the chosen field and one which will have been covered in the learning process.

The focal theory will become the framework against which the data is exposed, explored and analysed. In the focal theory chapter the model should be deconstructed and a point by point argument presented outlining its suitability, including its strengths and weaknesses.

**Methodology**

In short dissertations a section on methodology may be included in the focal theory section. Longer reports where the data may be greater should have a separate section.

In the methodology all that is required is a logical account of how the data is to be collected and a justification of how, why and when data will be collected. Detail, for example a questionnaire or interview schedule should be presented as an appendix.

**4. CASE STUDY RESEARCH**

The case study approach to research is probably the most popular in management dissertations. One of its most obvious benefits is that it is an action form related directly to practice and the clearest operationalisation of a general management technique or theory.

The case study itself is likely to deal with events, incidents or periods which are perceived as critical. This criticality may be the reason why the case study approach is more appropriate than other research techniques as a means of exploring and explaining the issue(s).

Case studies’ importance in research is reflected in the literature. Some of the following definitions indicate this. Cronbach (1975:123) described case studies as,

“Interpretation in context”,

Wilson (1979:448) referred to case studies as,

“A process which tries to describe and analyse some entity in qualitative, complex and comprehensive terms not infrequently as it unfolds over a period of time”,

6
Becker (1968:233) proposed that the purpose of case studies was, “to arrive at a comprehensive understanding of the groups under study… and… to develop general theoretical statements about regularities in social structure and process.”

The nature of Case Studies
Case studies may have as their primary focus a person, a group, a situation, a context, a location or a given period of time. The investigation may focus upon either single or multiple concepts, where single or multiple case incidents are explored. This gives the researcher a potential matrix of options from which to construct an investigatory framework, as shown in figure 4, below.

Figure 4: Case Study Structure - an Options Matrix

<table>
<thead>
<tr>
<th>Single Concept</th>
<th>Multiple Concept</th>
</tr>
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<tbody>
<tr>
<td>Single Incident</td>
<td>Single Incident</td>
</tr>
<tr>
<td>Single Incident</td>
<td>Multiple Incident</td>
</tr>
</tbody>
</table>

It is important, during the design phase of undertaking research, to appreciate the nature and extent of the variables to be handled. Since case studies have the potential to become ‘large pieces of writing’ the importance of categorising the case study cannot be over emphasised.

Case studies may take different forms in their research format and their presentation. They may be:

- historical accounts of events, chronologically presented;
- detailed descriptions of a single event from a variety of viewpoints;
- complex accounts of a situation in which both qualitative and quantitative data contribute to an understanding of events, circumstances, causes and consequences
- a simple description of a simple - and single- event person or period;
- highly biased viewpoints expressed by the actors in an event;
- statistical presentations, or models, based upon live data but omitting any qualitative content, comment or interpretation;
- combinations of analysis, diagnosis and description;
- presented through written, visual or aural forms of communication.
Figure 5, below shows how writers have characterised case studies:

**Figure 5 : Characteristics of Qualitative Case Studies**

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>‘thick’ description</td>
<td>can be used to remedy or improve practice</td>
<td>specificity</td>
<td>inductive</td>
<td>particularistic</td>
<td></td>
</tr>
<tr>
<td>grounded</td>
<td>results are hypotheses</td>
<td>description of parties and motives</td>
<td>multiplicity of data</td>
<td>holistic</td>
<td></td>
</tr>
<tr>
<td>holistic and lifelike</td>
<td>design is flexible</td>
<td>description of key issues</td>
<td>descriptive</td>
<td>logitudinal</td>
<td></td>
</tr>
<tr>
<td>conversational-style format</td>
<td>can be applied to troubled situations</td>
<td>can suggest solutions</td>
<td>specific</td>
<td>qualitative</td>
<td></td>
</tr>
<tr>
<td>illuminates meaning</td>
<td></td>
<td></td>
<td>heuristic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>builds on tacit knowledge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 5, suggests that case studies are normally likely to exhibit four main characteristics. These features are particularistic, descriptive, heuristic and inductive.

- Particularistic means that case studies focus on a defined an specific situation, event, programme of action or phenomenon. (see Wilson 1979)
- Researchers need to define the boundary of their investigation so that the focus of the case study is both determined and respected. (see Stake 1981 and Hoaglin et al 1982)

Researchers need to recognise the many ways of collecting qualitative data so that their case studies are in fact descriptions of events, rather than just a record or diary note, i.e. interviews, oral histories, newspaper cuttings, tape recordings, pictures, letters, minutes, reports and observations.

Heuristic means that case studies illuminate the reader’s understanding of the phenomenon under study. They can bring about discovery of ‘new’ meanings or interpretations extend the reader’s experience or confirm what is known. They can
also explain how situations evolved into their current state, thereby also offering the potential, sometimes, for prediction. (see Guba and Lincoln 1981 and Helmstader 1970)

Researchers need to remember the needs of their audience and write up both the case study and their interpretation of its contents in a way which is both interesting and elegant.

Inductive means that for the most part case studies rely upon inductive reasoning. Generalisations, concepts or hypotheses emerge from an examination of the data - data grounded in the context itself. Explanations of ‘why, how, when, where and who issues may emerge from the evidence, thereby enabling discussion to ensue by the researcher upon questions of evaluation, options, conclusions and contextual significance.

Researchers need to ensure that their case study research is always seen as a means to an end. This ought to guide them away from dissertations in which evidence of theoretical frameworks, conceptual appreciation and interpretations of their findings takes up a minute part of the work.

Theory and Practice
Case study research, at the Master’s level, tends to be located within a qualitative methodology. This implies that the researcher has approached the research process from a particular set of assumptions about the nature of the social world and the way in which it may be investigated. These assumptions concern:

- the very essence of the phenomena under investigation;
- the grounds of knowledge and how individuals understand the world and communicate this knowledge to others;
- the relationship between individuals and their environment

Depending upon how these sets of assumptions are combined, the researcher may seek for universal laws which explain and govern the reality which is being observed. Alternatively, the researcher may seek an understanding of the way individuals create, modify and interpret the world in which they find themselves. (Burrell and Morgan, 1979). The significance of these sets of assumptions is that it provides an explanation of, and the justification for adopting, quantitative and qualitative approaches to research investigations. Figure 6, below illustrates these different characteristics.

Figure 6: Characteristics of Qualitative and Quantitative Research

<table>
<thead>
<tr>
<th>Point of Comparison</th>
<th>Qualitative Research</th>
<th>Quantitative Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus of research</td>
<td>Quality (nature, essence)</td>
<td>Quantity (how much, how many)</td>
</tr>
</tbody>
</table>
Assuming that the Master’s dissertation is expected to demonstrate academic conventions of research, then familiarity with the content of figure 6 should be reflected within the chapter, or section on methodology.

The methodology chapter/section ought to contain clear statements which show:

- the components of the conceptual framework for the research;
- the reasons why a case study approach was chosen rather than any other methods of investigation;
- clear delimitation of the boundary within which the case study was collected;
- the manner by which the case study was interpreted;
- the position, role and values of the researcher towards the area of the case study, if such techniques of the observer, participant or participant observer were used.

Having made such views explicit, the researcher ought to comply with their implications throughout the undertaking of the dissertation. In writing up the interpretations and then offering conclusions, researchers may use case study research, inter alia, to

- suggest to the reader what ‘lessons’ have been shown from the data, supported, of course, by evidence and reasoning;
- examine a specific instance but illuminate a more general problem;
- identify dependent and relevant areas in which additional research could be justified;
- use hindsight whilst also having a contemporary relevance;
- show how the passing of time affects the issue;
- advance action plans based upon the conclusions and recommendations which are proffered;
- suggest ways by which evidence might be used to modify existing theories, or even propose new grounded theories.

These points are not unique to the users of the case study approach to research. However, those users do need to ensure that their framework of research, their fieldwork and their interpretations permit them to
offer such conclusions. This point represents the validity element within the dissertation. The point also recognises that most case study research is incapable of being replicated.

Case study research can contribute to the understanding of practice and the development of theory. As a research methodology it lends itself admirably to use within the master’s dissertation, where appendices can house volumes of data thereby freeing up the text to convey the richness of events inaction.

Case studies often appear to be quite easy to write - but that usually indicates the skill of the author rather than the simplicity of the research. Remembering that case studies have to exhibit such research traits as validity, reliability, ethics and coherence whilst also possessing a recognisable conceptual base of interpretations, places quite an onus on answering the question ‘What is going on here?’ However, writing up the report on case study research enables the author to present a story, describe situations, reflect opinions and values, deal with hard facts, incorporate theoretical interpretations and arrive at supportable conclusions. These are really quite appealing aspects of writing and researching because they stem from a single question: ‘What is it that you want to be able to say something about at the end of your research?’

5. QUALITATIVE/QUANTITATIVE APPROACHES

Undertaking mainly qualitative or mainly quantitative research may depend upon a number of things. Firstly your personal disposition - what interests you about the phenomena you are investigating. Secondly the nature of the phenomena. Qualitative or quantitative methodologies may only be distinctive at the poles. There is a kind of continuum between the two and this is particularly true in management research. For example within the multiplicity of disciplines that constitute management studies the range is from statistics and accounting on the one hand to human relations and organisational behaviour on the other. Between these two poles, which in themselves are somewhat arbitrary, are other topics that are not completely quantitative or qualitative, for example information systems management, marketing and business strategy. It is not uncommon now for the accountancy course to include role play to emphasise the political/behavioural aspects of cost allocation. It is very probable that in an investigation of a real problem quantitative and qualitative methodologies will be required.

Qualitative Research

What is qualitative research? Van Maanen (1983:9) describes it as,

“An array of interpretative techniques which seek to describe, decode, translate and otherwise come to terms with meaning, not the frequency, of certain more or less naturally occurring phenomena in the social world”

The value of data generated in this way is its richness, often observed by the researcher. Judi Marshall (Pearson et al 1981:395) talking about gathering qualitative data observed that,
“it’s important for me to have been there. I can’t imagine doing an adequate analysis of data if I haven’t participated in collecting it”.

The benefits of ‘being there’ and thus the richness has to be set against the possibility of bias or being too subjective. Marshall acknowledges this tendency, but feels that (ibid:398-399),

“my feeling of rightness is important…. it is my translation, what I have found and interpreted from the data. My bias is something I appreciate, it’s part of me as a researcher. And while it is important for me and for others to recognise my bias, it really is what I can give as a researcher, it is my contribution, and it is coherent and it’s felt and it has all these other qualities which make me value it more than a detached attempt to be objective.”

So what are the characteristics of qualitative research? The following list attempts to answer this question:

- use of techniques of investigation which are not statistically based;
- smaller rather than larger scale investigations;
- researcher seeks to get to know the investigated area at first hand;
- observer/participant observation methodologies used by researcher, predominate;
- unstructured interviewing widely used;
- supplementary information drawn from wide range of sources, i.e. written evidence, visual material, and so on;
- inclusion of values, opinions and feelings held by respondents as valid evidence;
- long time contact between researcher and investigation area;
- searches for meanings rather than ‘causes’ within the investigation.

You may or may not accept the very personal process of interpreting qualitative data and wish to have a quantitative side to your research, even if you do not adopt a completely quantitative approach.

What are the characteristics of quantitative research? Above all it is to summarise your findings very succinctly and communicate them effectively to your reader. This may take the form of percentages, means, frequencies, etc., which are themselves supported by statistical tests to ‘prove’ the reliability of your figures (standard deviations, probability tests, chi-squared distributions, correlations and so on with ever greater sophistication). Statistics are properly the subject of specialist publications and will not be covered here. There are, however some basic qualities of quantitative research which must be mentioned. The following list attempts to define them,
• it deals with the quantifiable aspects of the phenomena (how much, how many ?);
• it will be experimental and statistical;
• it will be about prediction, control and description;
• surveys, questionnaires and scales will be very much in evidence;
• it will involve deductive analysis;
• it will look for causes rather than meanings;
• the contact between researcher and the phenomena investigated may be short rather than long term;
• the investigation may well be large scale (e.g. an attitudinal survey with hundreds of respondents);
• structures will predominate.

Management research quite often uses both quantitative and qualitative techniques since it is a multidisciplinary mode of study that is very inclusive in the phenomena investigated. In the next section sources and techniques for data collection are reviewed.

6. DATA COLLECTION
There are four common sources of data, Recorded documentary evidence, Interviews with key/relevant players in an organisation, Questionnaires and Participant observation.

Dead Data or the Nature of Recorded Documentary Evidence
Documentary evidence(or dead data) might be used to determine,
• when events occurred;
• where events occurred;
• who was involved;
• what kinds of activity occurred;
• what were the stated reasons for these various occurrences.

and further that when using such evidence it is important to,

• identify points of significance or criticality;
• seek generalities within the evidence;
• confirm and validate if possible;
• focus upon those particular and specific issues which typify the area under review;
• derive conclusions for that evidence.

Figure 7 lists many of the most common sources of dead data.

Figure 7: Sources of Dead Data
Sources such as those listed in figure 7 can prove to be very rich and are often neutral in terms of the qualitative/quantitative division.

**Interviews**

Interviews can be a very rich source of data, Burgess (1982:101) said that it provides the opportunity, “for the researcher to probe deeply, uncover new clues, open up new dimensions of a problem and to secure valid, accurate, inclusive accounts that are based on personal experience”.

Stewart (1982:45) said that it enables the researcher to understand, “how individuals construct the meaning and significance of their situation from the complex personal framework of beliefs and values, which they have developed over their lives in order to help explain and predict events in their world”.

To achieve all that Stewart and Burgess suggest requires careful preparation. Important people are not easy to schedule and there is always a need to be pro-active and to plan well ahead. The approach to the interview needs careful thought is it going to be unstructured, or will there be a rigid structure?; who will be interviewed?; will they be available within the time restraints that must be applied to the research?; will the interviewee be given forewarning of the questions or asked to prepare some material ahead of the interview?; and so on.

The first task is to identify who should be interviewed in order to give the researcher a reliable set of data. Candidates then need to be invited to participate and where necessary the required higher permissions sought and protocols observed. The interviewees’ schedules and the researcher’s schedules need to be matched. It is important to allow sufficient time for interview schedules; to have substitutes where possible to cover ‘dropouts’; and never have too many participants, interviewing schedules invariably take longer than planned as they are subject to all manner of disruption.

It is important to consider the form of the interview, there are two basic structures:

- **The unstructured interview** - in this type of interview the researcher has an agenda of subjects to be covered but no specific questions. The benefits of this approach are flexibility and open-endedness allowing issues to be pursued as they arise. The drawbacks are that it can be very time consuming and produce non-standard data.

- **The structured interview** - in this type of interview the researcher has a schedule of pre-prepared questions. This approach can produce relatively standard data quickly. The drawback is that the
opportunity for important issues to arise that the researcher may not have considered, is lost and the data may be less rich.

The interview may be, of course, a hybrid, depending upon data requirements; and closely linked to the structure is the issue of what to ask.

Ryle (1975) said that the first step in constructing interview questions was to specify the variables and name them; since variables are what basically what is being measured. The styles of the question is also important. Easterby-Smith et al (1991: 80) listed some of the main kinds of questions as:

- the basic question - simply asking the interviewee about the issue;
- the explanatory question - to clarify specific information;
- silence - use silence or pauses to encourage the interviewee to continue and provide more information;
- the drawing out question - repeating what the interviewee has said to get her/him to focus on the issue and provide more information.

The interview itself has three important phases which should be recognised and managed. Figure 8, shows the three interview phases, the ‘warm-up’, the main section and the ‘let-down’, which indicate the intensity of the data collection across the time period of the interview.

Figure 8: Interview Phases

The initial ‘warming up’ phase is where the interviewer may explain and clarify the purpose of the interview. At this point the interviewer is likely to do most of the talking. This is naturally followed by the so-called main section. This is the longest and most important part of the interview where almost all
the important data is collected. During this phase the interviewee begins to talk at length. The final phase is the so-called ‘let-down’. Here the interviewee should be allowed to talk herself/himself out. The ‘let-down’ is a gradual disengagement where the discussion is more general and will probably move from the main focus of the interview. It is an essential part of the exercise that allows the interviewee to feel completely comfortable with the process.

The interview is likely to have gone well of course if the essential ‘don’ts’ have been observed, such as ‘don’t be late’, don’t use leading questions, don’t dominate the discussion, don’t exhibit boredom and don’t lose control.

It may not always be possible to collect all the data at one session. If the norms suggested above have been observed it will be much easier to get the interviewee to agree to a further session; a follow-up telephone call; or to completing a follow-up questionnaire instrument.

**Questionnaires**

It is not the intention here, as with the other aspects of research considered, to deal with the issue of questionnaires at length. There are many good expert publications in each of the areas covered. Oppenheim’s (1992) version of his classic publication on questionnaires and survey techniques is no exception, so it seems very appropriate to quote him. Oppenheim (1992:180) says that, “We should think of the questionnaire as an important instrument of research, a tool for data collection. The questionnaire has a job to do: its function is measurement.”

It thus has a similar function to the interview and so as stated above, the first issue when considering questionnaire design is what is to be measured, what are the variables? Once this question has been answered then the construction of the questionnaire and the design of the questions can begin.

When designing questions it is important to ensure that,

- questions are clearly and simply expressed, avoiding unnecessary jargon;
- each question should address a single issue;
- questions are not too long;
- questions are precise;
- questions avoid any leading inference.

The layout of the questionnaire is important. The first page usually introduces the questionnaire and gives guidance for completion often showing a sample question, e.g. Figure 9.

**Figure 9: Questionnaire Guidance Question**
How to Answer the Questions

Almost all the questions have five possible answers: you circle the Number of the answer which comes closest to your own view.

EXAMPLE ONLY

Q. “The sun always shines in Bognor Regis”

<table>
<thead>
<tr>
<th>Please Circle One Number</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>True</strong></td>
</tr>
<tr>
<td>5</td>
</tr>
</tbody>
</table>

Questions may be closed or open ended. The former are easy to complete and later to collate and analyse. The latter are more difficult but may produce richer data. Most questionnaires contain a mixture of both.

Question sequence is important. It is usual to start with simple factual questions and progress to those that are more complex and attitude or opinion seeking.

Where a large number of questionnaires is to be issued it is often useful to employ scaling techniques such as Likert scales. Figure 8, above, shows an example of Likert scaling where 5 represents the highest positive reaction to the statement and 1 the lowest. Oppenheim (1992) discusses scaling very fully including in the case of Likert scales the choice of numerical range a 5, 6 or 7 point scale for example and should there be a median point?

It is of course essential to pilot the questionnaire before releasing it to test its comprehensibility. This should always be done regardless of the size of the survey. The process is simple. The questionnaire is completed by some volunteers who are prepared to discuss their answers face to face with the questionnaire author since this is the most effective way of being certain that the question asked is the question perceived and understood.

Confidentiality should be assured to all respondents. In cases where responses for sub-groups are recorded and reported the groups should not normally be less than eight in number. Any deviation from this norm should always be agreed with the respondents concerned.
The points covered here are the basics, it is very strongly recommended that a specialist text should be consulted when using questionnaires in research to avoid the many possible pitfalls that would render the ensuing data invalid.

**Participant Observation**

Participant observation can be a very rich form of data collection in spite of the dangers of bias and subjectivity. Participant observation records a perception of reality by examining the 'present' activity of an organisation often through the perceptions of the key players.

There are various forms of participant observation. The researcher may be a full participant in the events being 'measured'; or purely an observer; or perhaps having a role somewhere in between. The participant understands the events as an insider and can bring a particular kind of interpretation to the data; the observer, as a witness, can bring a rather different form of interpretation that can be just as valuable. However both approaches require the researcher to confront the issues raised by this kind of research in order that the truth may be attained as nearly as possible.

The relative value of the participant understanding the events because she/he is part of them as against the observer witnessing events as an outsider have to be balanced and a number of questions considered. Does the presence of a researcher within the events have any contaminating effect? To what degree are the respective roles, participant/observer value free or value laden? How far for each role are the formal/informal processes understood?

Whist there are many dangers in this form of research, the benefits may far outweigh the dangers in the richness of the data. Objectivity may be supported by attempting a rigorous analysis of the data using the focal theory as the framework for that analysis. This is examined in the next section.

**7. DATA ANALYSIS AND PRESENTATION**

The first task in data analysis is to become really familiar with the data. Get to know it thoroughly - as one researcher said “fondle it”. This process, whether the research has been quantitative or qualitative will allow patterns to emerge and confirm as Judi Marshall said (1981:395),

“the assumption that there is some sort of order in the data.”

Familiarity with the data will make the trends, clusters and its weaknesses more clear. This will allow you to classify the data into Primary and Secondary findings and to reject any findings that are unusable. The process of analysis against the focal theory paradigm, and the testing of hypotheses can begin. This will enable you to discuss the degree to which your findings match up to your original suppositions or not. Either way if the research has been carefully prepared and rigorously executed the results will be valid.
The analysis of the data against the thesis is a similar process to the creation of the thesis, it’s an iterative process where the issues and insights emerge the more you consider the data.

Quantitative data needs to be handled in the same way initially. You need to be clear about its message before you can present it clearly and effectively. The statistical nature of the data produced in quantitative research requires you to summarise and communicate. Let common sense rule. Sometimes statistical presentations can become too sophisticated and cloud the message.

The purpose here is to deal with the presentation of statistical data at the basic level. The issue of statistical tests is the business of specialist texts.

The data presented in figures (diagrams, pictograms, bar charts, pie charts, graphs, etc.) should be as simple as possible so that the flow of the argument is enhanced by the statistical presentation and not obscured. Tables should never contain too much data. If the data source is complex then a summary table should appear in the main text with all the detail reserved for an appendix.

Any table of figure should be announced in the text so that the reader is prepared. The figure or table should be logically numbered. Usually by a number that indicates both the chapter number and the figure or table number. So the second figure in the fourth chapter might be “Figure 4:2” and the fifth table in the same chapter “Table 4:5” and so on. Each figure/table should have a title that describes the data presented as clearly and succinctly as possible. The tables/figures should be set out as logically and clearly as possible so that the flow of the argument is no disturbed. After each table or figure there should be a short confirmatory statement in the text to reassure the reader that he/she has understood the message.

In the closing paragraph(s) of the analysis chapter/section the strengths and weaknesses of the data should be explored. It is important to admit weaknesses in the data. These are unlikely to be fundamental unless there has been a serious breakdown in communication between supervisee and supervisor. Data is rarely perfect or totally uncontaminated. A frank discussion of the issues will allow you to move on to that most difficult chapter the conclusions and recommendations with greater confidence that you can summarise what you’ve already said effectively.

8. CONCLUSIONS AND RECOMMENDATIONS

This final chapter in a dissertation often takes some care to get right. It is possible that authors are suffering from over exposure to the topic at this final stage and lack the enthusiasm, freshness and concentration that was present in the earlier stages. The structural suggestions made here may help.

Conclusions
Essentially the conclusions “say what you’ve said” succinctly focusing on the following,

- the research focus and the main findings;
- the thesis, the conceptual framework (focal theory, hypotheses);
- the research indicators (methodology etc., how this worked out in practice);
- the primary and secondary findings;
- the theoretical perspectives/linkages;
- the degree to which the thesis was proved (including where appropriate hypotheses/proposals);
- the limitations;
- new issues or questions raised.

There should be no surprises or development of ideas in the conclusions, only points that have already been justified by the evidence should be made.

**Recommendations**

These should always follow the conclusions since the content of the conclusions supports the recommendations and contains the reasons why the recommendations are made. A view on how the proposed actions might be taken needs to be included somewhere within this section, probably prefacing the actual recommendations, which should,

- be directed towards the examiner and the client/sponsor;
- include statements which are supported by the research evidence;
- contain no surprises for readers of the research;
- be expressed as singles item statements in a list;
- be realistic and attainable;
- be written in a clear, direct and confident style.

9. **FINAL TASKS**

**Introduction and Abstract**

When the conclusions and recommendations have been written the introduction and abstract should be written, since it is only when the work is ‘finished’ that you know ‘what you’re going to say’ which is the essential content of the first chapter.

**Bibliography**
This is a very late task since only when the substantive chapters have been written can the final check be made to ensure that all references are properly listed in the bibliography.

Appendices

These need to be assembled and ordered so that any detail that should be included is included and easily found by the reader when required.

Production

Check the production requirements in the relevant university handbook before producing the final edition. Details such as format, spacing, and so on for the word processing and presentation details such as contents, lists of tables, lists of figures and so on.

When it is all over and the final bound versions have been submitted, be prepared for withdrawal symptoms. Good luck!

Bibliography


