

**Summary
Guide
to Postgraduate Research**

Postgraduate Research Objectives:

To learn:

- How to undertake an unbiased, systematic investigation
- The mechanisms by which any biases and/or personal prejudices can be identified and eliminated from the investigation through appropriate experimentation and/or analysis
- How to evaluate the benefits and shortcomings of the investigation
- How to accurately convey the outcomes of an investigation to peers and how to interpret and respond to their feedback.

Postgraduate Research Motivator:

An individual should seek to undertake a Master's or Doctoral research program for the purposes of becoming a person who has a solid understanding of the mechanisms associated with the systematic and rigorous process of discovery and independent review.

Postgraduate Research Tenets:

- A postgraduate research program is a means by which a student can learn how to undertake research in a systematic and unbiased manner
- The research project, and the research field, are the basis of a task which is set in order for the student to acquire research skills and to demonstrate these to independent assessors
- A successful outcome in a research program is one in which the research student has acquired the basic skills of research and has recognised how these can be more generically applied to other areas or, at a higher level, within the chosen field.

Specific Doctoral Objective:

The researcher needs to demonstrate a *significant* contribution of knowledge to the field of endeavour, through a clearly-defined investigation, analysis and peer review.

Specific Master's Objective:

The researcher needs to demonstrate a *mastery* in a given field of endeavour, through a clearly-defined investigation, analysis and peer review.

	<i>Predisposing Objective</i>	<i>Impartial Observer's Objective</i>
(i)	<i>"Develop a methodology which..."</i>	<i>"To investigate whether or not the development of a methodology could..."</i>
(ii)	<i>"Demonstrate the correlation between..."</i>	<i>"To determine whether or not a correlation existed between..."</i>
(iii)	<i>"Prove that the theoretical relationship..."</i>	<i>"To study the theoretical relationship..."</i>
(iv)	<i>"Develop a model that can be verified..."</i>	<i>To determine the limitations of a model that...</i>

Table 3.1 - Converting Predisposing Objectives into Objectives that can be Adopted by an Impartial Observer

	Argument	Counter Argument
(i)	<i>"All the research suggests..."</i>	<i>You could not possibly have studied ALL research</i>
(ii)	<i>"Until this research program commenced no research had ever been undertaken in this field..."</i>	<i>In order to prove this you would have to have seen ALL research</i>
(iii)	<i>"It is this author's opinion..."</i>	<i>You are not an expert - what do other learned people think</i>
(i)	<i>"The evidence uncovered during the course of this research suggested..."</i>	<i>Justifiable statement</i>
(ii)	<i>"A literature review undertaken during the early phases of this research program covered a range of key journals in the field, cited herein, and these did not contain reference to any similar research..."</i> <i>"Jones (1967) stated that no research in this field had been undertaken up until that time..."</i>	<i>Balanced statement of status</i> <i>Impartial assessment of status</i>
(iii)	<i>"Thwaites and Simpson (1999) expressed the view that..."</i>	<i>Impartial supporting statement</i>

Table 3.2 - Alternative Approaches to Expressing Sentences in Order to Avoid an Examiner's Counter Arguments

<i>Issue</i>	<i>Master/Apprentice Supervisor's Beliefs</i>	<i>Laissez-Faire Supervisor's Beliefs</i>
<i>The Research Student</i>	Needs to be carefully trained by an expert	Is already qualified and capable of self-learning
<i>The Research Program</i>	Needs to be mapped out by an expert in order to avoid mistakes	Needs to be mapped out by the student as part of the learning process
<i>Independence</i>	Something that is earned after the apprenticeship	An integral part of the learning process
<i>Publication</i>	The master's name should always appear first because the apprentice is only an assistant in the program	The student's name should always appear first because the student is the driving force and the supervisor is the guide
<i>Interaction</i>	Daily interaction and discussion	Weekly or monthly interaction
<i>Supervisor's Knowledge</i>	Should be far greater and deeper than the student's in the specific field of research	The student may have more depth in the specific field but the supervisor has more overall knowledge about the process of research

Table 4.1 - Supervisor Beliefs

<i>Factor</i>	<i>Master/Apprentice Relationship</i>	<i>Laissez-Faire Relationship</i>
	A = Advantage D = Disadvantage	
<i>Risk</i>	<p>A More likely to lead to research outcomes accepted by peers</p> <p>A Research project plan/theory developed with high level of expertise</p> <p>D Lower probability of achieving an outstanding outcome in one's own right</p>	<p>A Higher probability of achieving an outstanding outcome in one's own right</p> <p>D Possibility of an outcome which is not accepted by peers</p> <p>D Research project plan/theory may have fundamental flaws or gaps</p>
<i>Learning</i>	<p>A Experience comes from disciplined training rather than unguided self-learning</p> <p>D Student only strives to reach the level of the supervisor</p>	<p>A Experiential self-learning may lead to student becoming far superior to supervisor</p> <p>D Mistakes may not be identified during the program</p>
<i>Originality/ Creativity</i>	<p>A High levels of drilled rigour may lead to good research practice even without creativity</p> <p>D Creativity stifled - student tends to become a clone of the supervisor</p>	<p>A High level of creativity is promoted</p> <p>D Creativity divorced from rigour may not lead to good research practice</p>
<i>Theory</i>	<p>A Generally checked with a high level of expertise</p> <p>D Student may be too trusting of supervisor's erroneous advice</p>	<p>A Student more likely to self-check work and get alternative opinions</p> <p>D Fundamental gaps or flaws may slip through undetected</p>
<i>Research Method</i>	<p>A Student develops a good research technique if supervisor is good</p> <p>D Student may develop a bad research technique if supervisor is bad</p>	<p>A Student's self-learning may lead to deeper experiential learning and high-level research skills</p> <p>D Student may not develop rigorous techniques without drilling</p>

Table 4.2 - Possible Advantages and Disadvantages of Supervisor Types

	<i>Problem Group</i>	<i>Typical Problems (Student Perspective)</i>
(i)	<i>Interpersonal</i>	<ul style="list-style-type: none"> ● Supervisor doesn't like me ● I don't like my supervisor ● Supervisor and I argue over everything ● Supervisor thinks that I lack intelligence
(ii)	<i>Belief-system / Alignment</i>	<ul style="list-style-type: none"> ● Supervisor is arrogant ● Supervisor won't allow me to do the project in my own way ● Supervisor isn't doing his/her job ● Supervisor doesn't contribute anything ● Supervisor doesn't know anything about the specifics of the subject
(iii)	<i>Technical</i>	<ul style="list-style-type: none"> ● Supervisor and I completely disagree with the plan for research ● Supervisor will not accept my findings - asks me to repeat experiments
(iv)	<i>Ethical/Moral</i>	<ul style="list-style-type: none"> ● Publications - who's name should be first ● Supervisor has presented my work as his own research ● I have published a paper without my supervisor's name ● Supervisor has made me publish the same paper in two different journals with different titles ● Supervisor asks me to falsify results ● Supervisor is deliberately delaying my research so he can use me as a publishing machine for his benefit ● Supervisor insists on borrowing other research work without providing due credit

Table 4.3 - Typical Supervisor/Student Disputes (Student Perspective)

	<i>Problem Group</i>	<i>Key Factors to Consider (Student Perspective)</i>
(i)	<i>Interpersonal</i>	<ul style="list-style-type: none"> • A professional relationship must be maintained whether or not a personal working relationship exists - it is incumbent upon the student to ensure that he/she is not the primary cause of the professional relationship breakdown • Learning to work with difficult people and superiors is a self-discipline which is critically important to any professional position • Learning to separate personal and professional issues is important - don't raise personal issues in professional discussions • Never use other people's behaviour as a rationalisation for your professional behaviour
(ii)	<i>Belief-system / Alignment</i>	<ul style="list-style-type: none"> • Endeavour to understand the basis for the supervisor's perspective and beliefs • Accept that the supervisor may have more experience in the conduct of a research program and use his/her input as another source of information • Recognise that each supervisor has a particular set of views on supervision - some believe that "hands-off" is the best form of supervision
(iii)	<i>Technical</i>	<ul style="list-style-type: none"> • Never take an intransigent position based upon your own technical opinions - always use independent sources and facts as the basis of your arguments

Table 4.4 - Key Factors to Consider in Resolving Some Supervisor/Student Problems

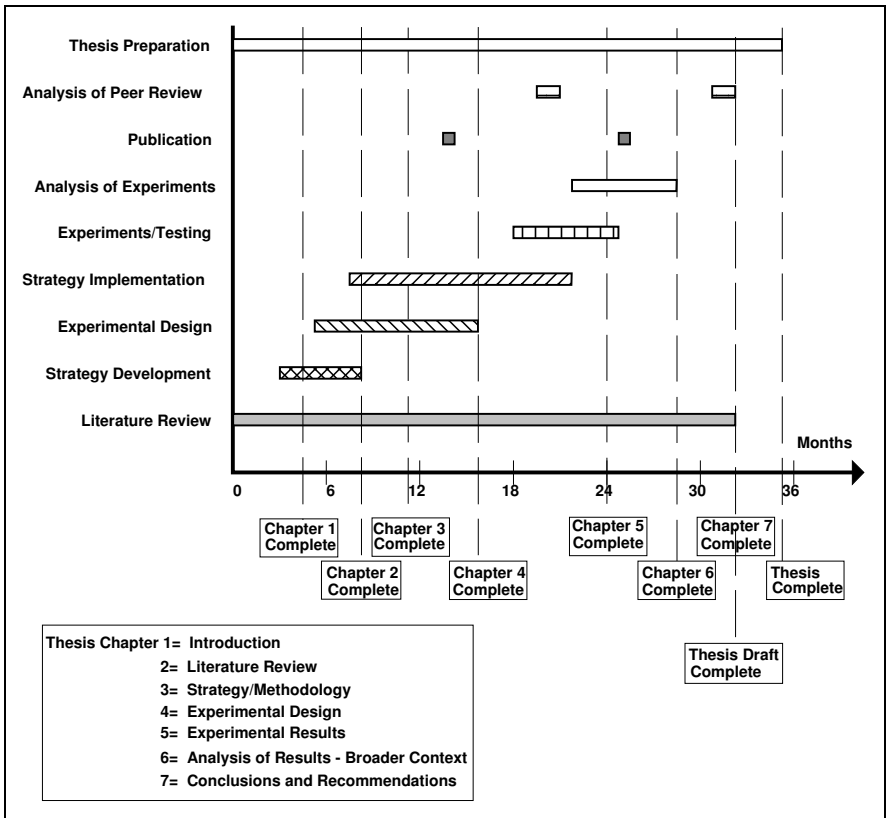


Figure 5.1 - Example Preliminary Program Plan for Three-Year Doctoral Program

	<i>Industry Perspectives</i>	<i>Research Student Perspectives</i>
(i)	Commercial/financial success	Academic excellence
(ii)	Converting ideas into functional products or systems is paramount	Testing the limitations of ideas is paramount - the objective is to see whether or not ideas can work
(iii)	Ideas that cannot be converted into functional products or outcomes are a failure	Ideas that cannot be converted into functional products or outcomes are an integral part of the research process - the research is to assess boundaries not to achieve a perceived "correct" solution
(iv)	Relative competitive advantage - shades of grey	Absolute solutions - black and white
(v)	Corporate excellence - individuals collectively work towards achieving an outcome for the corporate entity	Individual Excellence - individuals work towards achieving an outcome for the individual
(vi)	Team-based projects with knowledge vested over a range of individuals	Individual project with knowledge vested in one individual
(vii)	Propensity to keep developments confidential	Propensity to publish any new developments as a hallmark of success
(viii)	Projects are multi-disciplinary in nature and may involve marketing, science, production, sales, etc.	Projects are highly specialised in nature and focus on one particular type of expertise
(ix)	Financial indicators are used to measure success	Academic rigour takes precedence over financial considerations
(x)	Projects are successful if they can be rapidly commercialised	Projects are successful if they contribute new knowledge
(xi)	Concepts have little value relative to the overall process of development and commercialisation	Concepts are the end objective

Table 6.1 continued over-leaf...

	<i>Industry Perspectives</i>	<i>Research Student Perspectives</i>
(xii)	An academic solution is only a concept and a starting point	An academic solution is the end-point of a research process
(xiii)	Commercial outcomes take precedence over process rigour	Process rigour takes precedence over commercial issues
(xiv)	Time-frames are backward scheduled from perceived market demands for products	Time-frames are forward scheduled from an original concept
(xv)	Professional time-frames are measured in days or weeks	Professional time-frames are measured in months or years

Table 6.1 - Conflicting Industrial and Academic Perspectives

<i>Item</i>	<i>Incongruity Between Perspectives</i>	<i>Possible Mechanisms to Employ to Remove Incongruity</i>
(i) - (iii)	Definition of Outcomes	<p>Verbal communications from the student to the company, regarding outcomes and deliverables are inadequate</p> <p>From the outset of the program, and at every subsequent stage, the research student needs to clearly state, in writing, the specific outcomes that will be delivered to the company partner and the dates that they will be delivered.</p> <p>If there is a possibility that a physical product or service cannot be directly derived from the research, then the student must clearly state, in writing, that the outcomes that will be delivered to the company will be an investigation and study which the company can use as the basis of future decision-making</p>
(iv)	Definitions of Success	The research student needs to make it clear to the company, from the outset, that the research needs to be complete in an academic sense and that, while the company may wish to take advantage of intermediate results, the research must continue until it provides a rigorous set of results
(v) - (vi)	Excellence	<p>The research student needs to realise that a company, as an entity, is not concerned with individual excellence but, rather, with the excellence of the entity, which may be judged, not on technical or scientific grounds but on a financial basis</p> <p>The research student must avoid making arguments on the basis of personal excellence but, instead, by demonstrating how personal achievements can lead to benefits for the company as an entity</p>
(vii)	Confidentiality of Outcomes	A common problem and a difficult one to resolve. If a student requires peer review of work and a company is unwilling to have the work published then it is possible for a student to develop a formal research paper and to have that paper confidentially reviewed by international peers as though it was to be published. This may satisfy research requirements and company requirements.

Table 6.2 continued over-leaf...

<i>Item</i>	<i>Incongruity Between Perspectives</i>	<i>Possible Mechanisms to Employ to Remove Incongruity</i>
(viii)	Nature of Projects	<p>A research student needs to demonstrate to a company the need for specialisation - in many instances companies do not perceive a need for external specialists because they are seen as a threat to internal professionals. Often, a reassuring discussion, in which the research student highlights the skills of the existing staff and then expounds on how these skills can contribute towards the specialist project can defray common fears.</p>
(ix)-(xiii)	Project Processes and Outcomes	<p>A research student needs to acquire a detailed understanding of the company and its products in order to develop an understanding of the place of his/her own research project. The student also needs to develop a respect for the work of others within the company if his/her work is to be considered.</p> <p>The research student needs to acquire a detailed understanding of how others in the company will benefit from his/her research. Asking staff for their opinions on how the research can be skewed to increase its potential benefits can often create important links.</p> <p>The student must develop an ability to always put the research into a commercial context - otherwise industry staff will lose interest. Above all, the student must avoid overstating the significance of the project but, rather, gain support by relating the outcomes of the project to the specific needs of others within the organisation.</p>

Table 6.2 continued over-leaf...

<i>Item</i>	<i>Incongruity Between Perspectives</i>	<i>Possible Mechanisms to Employ to Remove Incongruity</i>
(xiv)-(xv)	Time-Frames	<p>A research student must learn to adapt to industry needs and time-frames if he/she is to retain support from the industry partner.</p> <p>Backward scheduling of research projects is useful for developing self-discipline in research and setting hard deadlines can often improve, rather than hinder, research outcomes</p> <p>If companies have difficulty in dealing with abstract outputs, delivered over a long period, then it is the research student's task to ensure that he/she can divide his/her task into smaller segments with which the company is more familiar - for example, the student can provide the company partner with a weekly or monthly report sheet that summarises past progress, future developments and final outcomes in order to make the company more comfortable.</p>

Table 6.2 - Mechanisms for Bridging Industry/Academic Perceptions

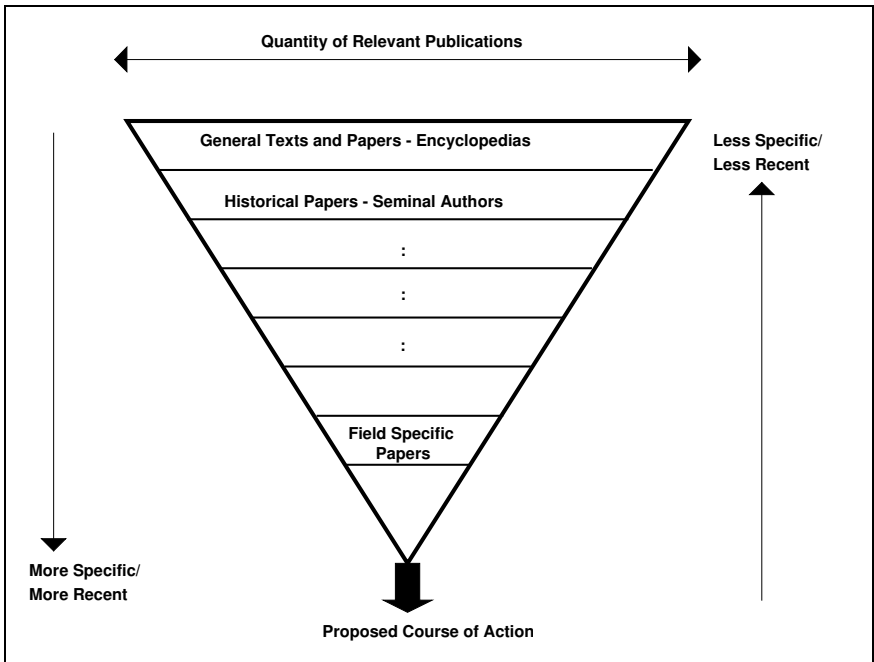


Figure 7.1 - The Literature Review Funnel

Thesis Writing...

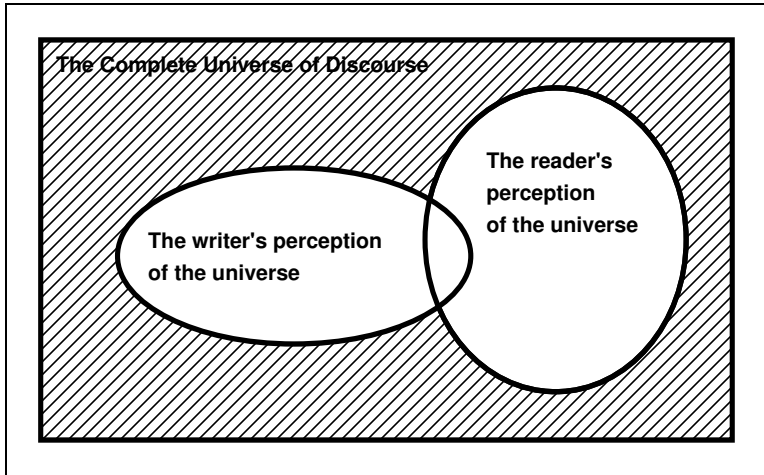


Figure 9.1 - Different Perspectives on the Universe

Rule 1:

Before writing a thesis, summarise the purpose and contribution of the research program in one or two sentences which are devoid of technical terms, mathematics or jargon. This is the simple theme for the thesis. Keep the simple theme in plain view at all times when writing the thesis.

Rule 2:

Highlight the simple theme as a starting point for the thesis introduction.

Rule 3:

Each thesis section and chapter that follows on, after the simple theme is presented, needs to either implicitly or explicitly link back to it - otherwise the theme will be lost.

Rule 4:

Make a clear profile of the reviewer/reader and his/her field of expertise before commencing the writing of a thesis

Rule 5:

The thesis is written from the perspective that, in order to assess the work, an expert reader will need to follow the historical thought processes of a novice learner in mastering a subject and extending knowledge through that mastery.

Rule 6:

The thesis is written from the perspective that it may be read at some distant time in the future as a historical work. The level of included explanations should be such that the reader of the future can interpret the significance of events, policies, technologies, etc. of the day.

Rule 7:

Do not use other people's theses as a benchmark, as a thesis is generally an amateur writer's work - always go to a higher professional source as the benchmark for writing style - even if the higher source is in a different field of endeavour.

Rule 8:

A cardinal rule of thesis writing is that if one cannot explain something in simple terms, then one does not understand what is to be explained. All subjects, regardless of their technical complexity, can be broken down into explanations that are written in simple English, and which are comprehensible to the lay-person. Those who cannot do this are not ready to begin the thesis writing process.

Rule 9:

The complexity of arguments, that are put forward in a thesis, needs to migrate from simple, through to elaborate, and back to simple in order to draw the reader into the work and ease the reader out of the work.

Rule 10:

The thesis structure must be able to support a logical flow of arguments, commencing with a simple concept and migrating towards detailed ideas and then back to simple summations. Without such a structure, the likelihood of an inexperienced author convincingly conveying a message to a reader is greatly diminished.

Rule 11:

Details that should be included in a thesis are those that enable another researcher, who already has access to general technical or professional skills, to reproduce the experimental conditions and tests in a thesis so that the work can be verified.

Rule 12:

Details that can be excluded from a thesis are those that describe items which can be produced by a technician or professional practitioner without any specialised knowledge of the purpose of the research.

Rule 13:

If a thesis chapter X is divided into Y sections, then all text must logically fall under Sections X.1 - X.Y in order to maintain consistency of numbering - there should be no floating text - the same approach applies mutatis-mutandis to sub-sections.

Rule 14:

Any items (e.g., paragraphs, list items), within a thesis section or sub-section, which are to be numbered for subsequent reference, must be uniquely numbered within that section or sub-section. If multiple sets of items need to be numbered, then differing numbering schemes must be applied to avoid ambiguity.

Rule 15:

A novice writer should always write each sentence in the thesis in the past tense. The only exception that should be made to this rule is when reference is made to "perpetual" truths - that is, mathematical/chemical expressions, references within the thesis itself, and so on.

Rule 16:

All non-textual items (e.g., Equations, Tables, Figures) within a thesis must be labelled so that references can be made to them. Non-textual items should only appear in the thesis after a textual reference is made to them - otherwise they should be excluded.

Rule 17:

All references to textual and non-textual items in a thesis should be by means of Section/Sub-section/Paragraph numbers or by labels. References by page numbers or by the expressions "above" or "below" should not be used.

Rule 18:

Acronyms and technical expressions, which are uncommon in the parlance of the profession in which the thesis is written, should only appear after an explanation of their meaning has been presented (or in conjunction with footnote explanations)

Rule 19:

The abstract should be used as a mechanism for providing a short, sharp picture of the research program, and its contributions, to the reader. Generally, the shorter the abstract, the clearer the picture. One or two paragraphs should be adequate for a postgraduate dissertation.

Rule 20:

The abstract should focus upon the broader issues of the research program and its findings. The abstract should be devoid of minute details unless those details are an integral part of the broader picture of research.

Rule 21:

The abstract is a mechanism by which a lay-reader can be introduced to the documented program of research and to the key words that describe the research and its contributions.

Rule 22:

The introductory chapter of a thesis needs to appeal to the lay-person and the learned professional. It must therefore be subjected to two, different types of review in the iterative drafting process - firstly, by a lay-person with no knowledge of the research program and secondly, by a knowledgeable peer who was not directly involved in the research. This provides a testing ground for both the arguments and the technical explanations.

Rule 23:

The research program, pursued by a research student, needs to be in alignment with the findings of the literature review in terms of the interpretation and extension of the previous findings of other learned peers. Deviations from courses of action, proposed by learned peers, can only be justified by the student in terms of the quest for further knowledge and, even then, this quest needs to satisfy the basic principles of a systematic investigation which has a sound theoretical basis.

Rule 24:

The structure of the literature review section should be such that it demonstrates the research student's techniques for systematically uncovering relevant work in comparable fields (i.e., landmark research, seminal papers) and also provides a balanced analysis of the uncovered research.

Rule 25:

The methodology chapter of a thesis should be written in such a way as to ensure that the project description and the details of an implementation do not dominate the work at the expense of the documentation of a systematic investigation. The process of a research student learning how to learn must remain at the core of the research program.

Rule 26:

The experimental design chapter should provide a detailed description of the procedures that were used to test the boundaries of a concept. The chapter should also present a detailed description of how reliable and valid these test procedures are; how they relate to the simple theme of the research, and what inferences (if any) can be drawn from the results.

Rule 27:

If the experimental procedures, applied to test the boundaries of a concept, are believed to be inadequate, and it is not feasible to create a more comprehensive set of testing procedures, then the experimental design chapter should focus upon how much value can be derived from the limited set of results and what further inferences can be drawn.

Rule 28:

The purpose of the results chapter is to present only those tabulated and graphed data sets that are explicitly related to testing the boundaries of the concept which is put forward in the simple research theme of a thesis. For each set of presented results, a statement needs to be made which links the results back to the theme in simple terms.

Rule 29:

In order to present an accurate picture of the research program. within the broader context, it is important that the literature review has been sufficiently thorough to trace the field of research to its origins. It is also important that the review examines the impact of field of study up to the time of the research program so that, when the results are finally extracted, they can be compared with precedents in terms of their impact.

Rule 30:

Historical texts or encyclopedias should be used to determine the relationship between research in the broader field of study, and its impacts upon society or industry. The inclusion of the current research program within the historical context helps to demonstrate an awareness of the significance of the research.

Rule 31:

The concluding chapter of a thesis should be composed of several parts. The first should summarise the relationship between what was achieved and what was initially proposed; the second should explicitly highlight the perceived contributions and limitations of the work, and the third should make recommendations for how future researchers could build upon the existing research.

Rule 32:

Thesis writing should only commence after a simple research theme is developed for the thesis. Each and every sentence and argument that is applied within the thesis should be consciously checked against the simple research theme to ensure that there is consistency before it is included.

Rule 33:

After the final draft of the thesis has been completed, the complete thesis should be re-read by the author, a learned peer and a lay-person, and each sentence compared against the simple research theme to ensure that no self-contradiction has occurred.

<i>Chapter Title</i>	<i>Purpose</i>
Abstract	A short piece of text that summarises the research program and its findings. The abstract is used by others for library cataloguing and literature search purposes
1 Introduction	A chapter designed to overview the purpose and background of the thesis, together with the proposed methodology and testing techniques. The introductory chapter needs to summarise what existed prior to the research; the specific contributions of the research and what existed after the research was completed. The chapter should also provide an explanation of how a defence of the research is presented within the remaining thesis structure
2 Literature Review	This chapter summarises the mechanisms by which the research student identified key researchers and the major forums for publication of work. The research student needs to demonstrate, in this chapter, how he/she developed a research methodology and experimentation scheme based upon the work of peers.
3 Methodology	The methodology chapter details the proposed ideas and concept that form the basis of the investigation
4 Experimental Design	This chapter is critical to the research student because it demonstrates how he/she was able to develop unbiased, systematic procedures for testing the validity of the proposed methodology
5 Experimental Results	The results chapter provides a forum for the research student to systematically present and summarise the data arising from the experiments/studies that were performed.
6 Broad Context Discussion	It is particularly important for the research student to take the experimental results and provide a discussion of their broader context - how they compare with other researchers and published work; how significant the results are to society, industry or a broader field of study.
7 Conclusions and Recommendations	The final chapter which summarises, in an unbiased manner, the findings of the research, relative to the stated objectives in the first chapter. The concluding chapter should also highlight the deficiencies of the research and how these could be remedied through further investigation.
Appendices	The appendices are used as an area for storing information which is important to the arguments raised in the thesis but, because of its length, detail or complexity, would otherwise interrupt the flow of arguments in the thesis.
Bibliography / References	A detailed listing of the sources from which knowledge and specific information was acquired.

Table 10.1 - The Seven-Chapter Thesis Template

<i>Chapter</i>	<i>Section</i>	<i>Title</i>
1	1.1	Introduction Overview of the Research Program
	1.2	Background
	1.3	Overview of Proposed Methodology
	1.4	Overview of Experimental Procedures
	1.5	Perceived Specific Contributions of the Research
	1.6	Thesis Structure
2	2.1	Literature Review Overview of the Literature Review Process
	2.2	General Theory
	:	More Specific Theory
	:	Detailed Theory
2.N	Summation and Resulting Research Directions	
3	3.1	Methodology Overview of the Methodology
	3.2	General Theory
	:	More Specific Theory
	:	Detailed Theory
3.N	Summation	
4	4.1	Experimental Design Overview of Experimental Design
	4.2	General Theory
	:	More Specific Theory
	:	Detailed Theory
4.N	Summation	
5	5.1	Experimental Results Overview of Experimental Results
	5.2	General Results
	:	More Specific Results
	:	Detailed Results
5.N	Summation of Results	
6	6.1	Broad Context Discussion Overview of Significance of Experimental Results
	6.2	More Specific Discussions of Context
	:	Detailed Discussions of Context
	6.N	Summation of Significance and Context
7	7.1	Conclusions and Recommendations Overview of Research Findings
	7.2	Perceived Research Contributions
	7.3	Limitations of Research
	7.4	Recommendations for Further Research
	7.5	Concluding Remarks

Table 10.2 - Sectioning Chapters to Ensure the Flow of Argument Complexity

<i>Item</i>	<i>Format</i>
<i>Line-Art Diagrams/ Figures</i>	Each diagram or figure should be labelled with both a number and a short explanatory description (e.g., Figure 6.2 - Pressure/Temperature Chart) which appears beneath the item. References to diagrams and figures should be by their labels and these labels are treated as proper nouns (e.g., The chart in Figure 6.2 shows...). The numbering scheme for diagrams should be chapter-dependent (e.g., Figure 7.9 in Chapter 7) in order to minimise changes during thesis development and editing
<i>Tables</i>	Each table should be labelled with both a number and a short explanatory description (e.g., Table 3.9 - Temperature Readings at Various Time Intervals) which appears beneath the item. References to tables should be by their labels and these labels are treated as proper nouns (e.g., The results in Table 3.9 show...). The numbering scheme for tables should be chapter-dependent (e.g., Table 4.2 in Chapter 4) in order to minimise changes during thesis development and editing
<i>Equations</i>	Each Equation should be labelled by a number which appears in parentheses on the right-hand side of the page beside the item (e.g., ...(6.2)). References to Equations should be by their labels and these labels are treated as proper nouns (e.g., The expression in Equation 6.2 defines...). The numbering scheme for equations should be chapter-dependent (e.g., Equation 3.1 in Chapter 3) in order to minimise changes during thesis development and editing

Table 10.3 Continued Over-Leaf...

<i>Item</i>	<i>Format</i>
<i>Photographs</i>	Photographs can either be treated as normal line-art diagrams/figures or can be labelled as plates (e.g., Plate 7.1), with the basic rules applied <i>mutatis mutandis</i> as for line-art diagrams.
<i>Acronyms</i>	Acronyms should only be applied after the full-spelling of the appropriate term is provided on the first usage <i>in each chapter</i> . The acronym should appear in parentheses beside the full-spelling and, thereafter, only the acronym should be used (e.g., computer integrated manufacture (CIM)). The full spelling of the term should be in the normal sense and proper nouns should not be applied unless they are normally associated with the words in the term (i.e., Computer Integrated Manufacture (CIM) is incorrect). A table of acronyms should be provided in the thesis as a guide.
<i>Latin/ Foreign Phrases</i>	Latin/Foreign phrases, which are normally applied in academic and common parlance, should be incorporated into the text in italics to remind the reader of the language change.
<i>Common Latin Acronyms</i>	Common Latin acronyms "n.b.", "i.e." and "e.g." should be applied with a full stop after each abbreviation. When used to supplement text, a comma should also follow their usage (e.g., "n.b., the test results in Table 4.1 were...")
<i>Numbers in Sentences</i>	The numbers one to ten are written in words. Numbers greater than ten are written in numeral form. When a number range is included in a sentence, then the boundaries of the range are written in numerals (e.g., 10-100).

Table 10.3 - Basic Thesis Formatting Guide

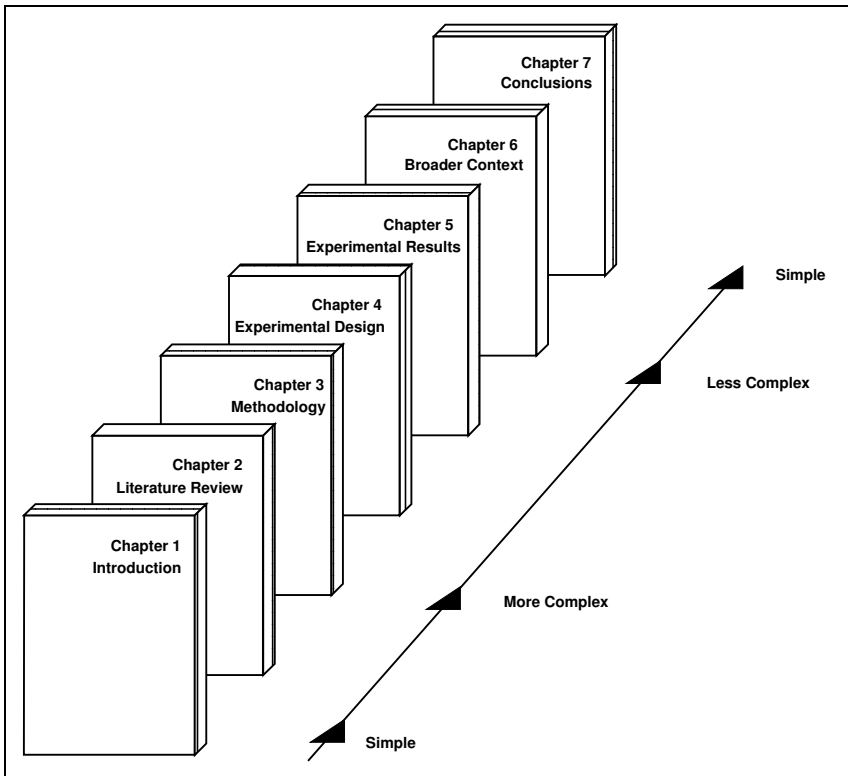


Figure 10.1 - Flow of Argument Complexity in a Thesis

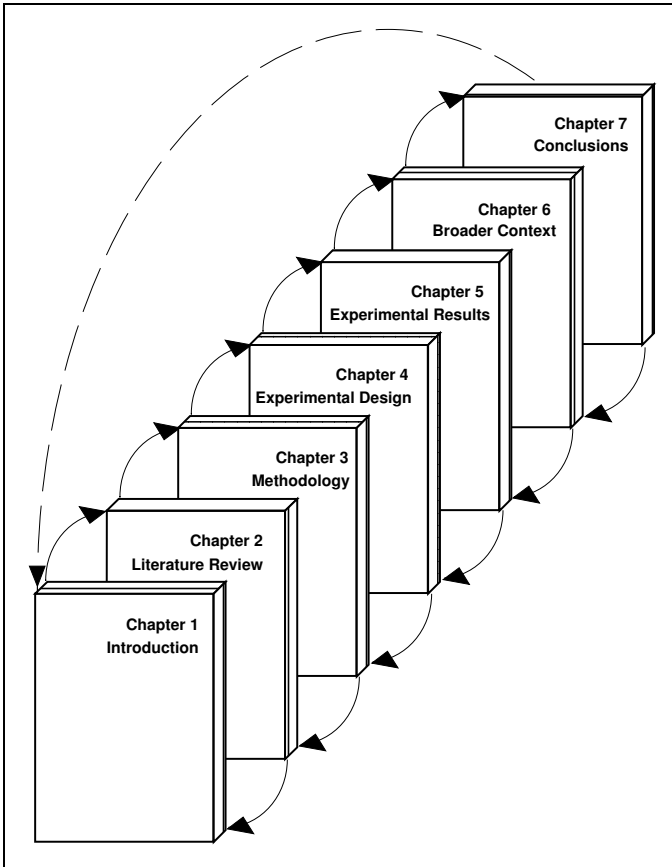


Figure 10.2 - Logical Chapter Linkages in a Thesis