## **Guidelines for PhD Theses Presented in Papers Format**

Rules for the presentation of theses are included in the Regulations for the degrees of MPhil and PhD.

Although there are common structures for dissertations in specific disciplines (for example, in a science PhD thesis it is usual to find introduction, experimental, results and discussion, references and appendices), other formats can be considered.

The format described below may be considered where it is likely that individual chapters may be suitable for publication as papers in international journals, with little modification. The decision to undertake a PhD by Papers Format should be supervisor-led. PhD Researchers are not obliged to adopt this format but those who do must take account of the following requirements of the Doctoral College Board (previously Research Degrees Committee (RDC minute 99.43)), which address problems which are presented by this approach.

- (i) candidates and co-authors would be required to provide a statement or statements indicating the levels of the various contributions to the papers;
- (ii) examiners would be permitted to require revisions to be made to any previously published papers included in the thesis; and
- (iii) candidates should be prepared to take appropriate advice on copyright matters relating to jointly-authored and previously published works.

Furthermore, it is imperative that the thesis provides a cohesive report of a major research study and that the introduction and general discussion establish the context of the papers which may be presented as individual chapters.

Format for a PhD thesis designed to incorporate publishable papers as chapters:

- (a) Cover, title page etc
- (b) Abstract (one page)
- (c) General introduction of less than 3,000 words providing a background to the work. This should be followed by a clear statement of the aims of the investigation, the rationales for the experimental work and an outline of the thesis.
- (d) A review of the literature (in a publishable form). Such a review should have a stated aim and should take an original approach and build on earlier reviews in the literature and not just paraphrase them. Published reviews are important for the development of the subject area and have the added advantages of encouraging the PhD Researcher to think and to generate new hypotheses.
- (e) A series of papers suitable for publication in peer-reviewed international journals, presented as individual chapters of the thesis.

- (f) A general discussion of less than 5,000 words addressing whether or to what extent the aims of the research work have been achieved, the significance of the results obtained, and suggestions for further work. This discussion must establish cohesion between the preceding chapters (papers) within the context of the thesis topic.
- (g) Summary of the major findings, preferably in point format.
- (h) List of publications (including papers submitted) of the candidate divided into those related to the thesis and other publications.
- (i) Appendices: If a candidate has collected data or carried out other developmental work which cannot be incorporated readily into a scientific paper, or for which the candidate was not primarily responsible, such information should be placed in an appendix or a number of appendices. These appendices could also contain detailed descriptions of the methodology - not normally described in full in scientific papers.

Assessment criteria:

The following notes of guidance are designed to provide information for supervisors and PhD Researchers involved in the preparation of PhD theses. They supply explanatory material which must be read in the context of the regulations and university guidance notes.

Two important things need to be borne in mind at the outset:

- 1. Whatever the format of thesis presentation it is the quality of the content, analysis and presentation that will be evaluated by the examiners. Modifying the presentation format will not serve to disguise shortcomings in the content of the work.
- It must be remembered that the thesis is being written primarily for the examiners to carry out the examination of the work within the context of the regulations. Other objectives such as preparation of material for publication are subsidiary.

The University allows the presentation of a PhD thesis either in the traditional format with chapters covering introduction, literature review, methods, results, discussion etc or with the material focused around manuscripts in paper format (not necessarily already published or even submitted). Regardless of the format chosen the same assessment criteria are used as follows:

- 3.1 The thesis must be essentially free of plagiarised material, from whatever source.
- 3.2 The title of the thesis is accurate and succinct; describing the work carried out, and contains appropriate key words for electronic abstracting.

- 3.3 The abstract accurately describes the outcomes of the research without extraneous discussion and is of appropriate length, not more than 300 words.
- 3.4 The aims of the research are clearly identified and the extents to which these aims have been met are fully discussed.
- 3.5 The context of the research is well developed through reference to contemporary and historical material where appropriate.
- 3.6 The volume of effort reflected in the piece of research is appropriate to the length of the research programme.
- 3.7 The thesis reports a piece of independent and original work carried out by the PhD Researcher and where collaborative work is included the relevant contribution of all participants is clearly identified.
- 3.8 The thesis contains clear evidence that appropriate methodologies have been selected and justified, that they have been correctly applied and that the results have been properly interpreted.
- 3.9 Where results are presented in other than textual form these use suitable formats that are intelligible, unambiguous and not repetitive.
- 3.10 The PhD Researcher must demonstrate in the thesis a critical understanding of the outcomes of the research and its significance.
- 3.11 The use of reference materials in the thesis must be appropriate to the field of study, must be correctly used and cited and should contain the most relevant research.
- 3.12 The overall presentation of the thesis must be of a standard that makes assessment of the work readily possible. The language use, organisation and layout and absence of errors must be of a high standard.
- 3.13 The research contained in the thesis must represent a level of practical and intellectual achievement by the PhD Researcher suitable for the award of a doctorate.

Examiners are asked to bear in mind that theses must be completed within strict time limits, adherence to which is monitored by the Doctoral College in consultation with those responsible for the progress of individual PhD Researchers. Theses constitute the outcome of a period of training in research methods and, in order to present a satisfactory thesis, PhD Researchers must exhibit a capacity to apply appropriate techniques successfully at masters or doctoral level.

Where the PhD Researcher and the supervisors agree that a paper format is appropriate for a thesis, simply submitting a number of paper manuscripts without additional material will not satisfy the requirements above. The paper format is probably a more difficult one to achieve than the traditional format. The papers included in such a thesis should be of a standard suitable for acceptance for publication in a good, peer reviewed journal in the subject area. The following requirements should be particularly scrutinised closely to determine if they have been met.

- Have the aims and objectives of the work as a whole been clearly stated?
- Has the context of the work as a whole been fully developed? To do this effectively a separate introduction/literature review will be required.
- Have appropriate methodologies been developed and properly applied? A separate section may be required to describe the process of method development that otherwise might not be included in a paper.
- Has a critical understanding of the work been demonstrated by the PhD Researcher? It is essential that a summarising discussion section is included where a number of separate papers are submitted.
- Where the paper manuscripts indicate multiple authorship the precise contribution made by the PhD Researcher to the execution of the work and the writing must be explicitly stated.
- Is the thesis presented in a form that makes assessment of the work readily possible by the examiners? This requirement needs to be carefully considered where paper formats are being used due to the potential for a disjointed and repetitious mode of presentation.