

# DOCTORAL THESIS WITH PUBLICATIONS GUIDELINES

## THE DIFFERENCES BETWEEN A DOCTORATE WITH PUBLICATIONS AND A TRADITIONAL THESIS OR DOCTORATE BY MONOGRAPH

The “Doctorate with Publications” is an alternative to the traditional “Doctorate by Monograph” approach to writing the doctoral dissertation.

In a traditional Doctoral thesis by Monograph, the doctoral student writes up their research in a comprehensive thesis or book form, with typically discrete chapters that cover for example, an introduction, literature review, conceptual development or methods, results and analyses, discussion, and conclusions. The monograph approach demonstrates both depth and breadth of knowledge in the student’s discipline within a single tome. Often only once the doctoral thesis is completed is an attempt made to publish one or more research articles arising from the work, which are then submitted to academic journals or other appropriate peer-reviewed literature.

In a Doctoral thesis with Publications, the doctoral student authors or co-authors multiple articles on their research during their doctoral programme. These articles are then collated and linked together to constitute the doctoral thesis. Each article will be structured in a way that is appropriate for the field and specific publication, often typically comprising an abstract, introduction with literature context, conceptual development or methods, results, analyses, discussion, and conclusions. This may lead to some repetition in a thesis of this nature, which is not in this context seen as a flaw. It is important to recognise that a thesis with publications is not composed exclusively of publications (see structure below). A doctoral thesis with publications must still demonstrate sufficient breadth and depth of knowledge in the discipline but does so using an appropriate number of discrete published articles as chapters (see below).

## GUIDELINES FOR PREPARING A THESIS WITH PUBLICATIONS (TwP)

Candidates considering presenting their thesis with published work should consult with their supervisors early in their candidature to determine whether the thesis with publication format is appropriate. If a candidate is considering this format, it is expected that this be identified as part of the ‘confirmation of registration’ candidature milestone process.

A Doctorate with Publications requires a candidate to present a thesis comprising typically between two and six research papers/publications. The exact number of publications included in the thesis may vary by discipline. Students may write a monograph thesis and publish just one paper. The publications may be various stages of publication at the time of thesis submission for examination.

The expectation is that the doctoral candidate should target mainstream journals in their discipline for publication of their work. Wherever possible aim for international and highly ranked journals, or a journal with a robust peer review process.

Publications contributing to the doctoral thesis must have been written during the period of candidature enrolment and supervision in the doctorate, and candidates cannot present material which was published prior to their doctoral enrolment as part of the thesis.

Published material may be submitted for examination once only and by one doctoral candidate, so where team research is involved, it is important to clarify roles at an early stage. In special circumstances, different parts of the same publication may be submitted for examination by different candidates (e.g. where experiments and modelling have been done by different people). This will need to be clarified in a statement of contribution that is required to accompany each chapter comprising a publication (see below).

Where work has been published, the journal/publisher may need to give copyright permission for the material to be included in a thesis which will be placed in the Library's electronic repository. Candidates should gain copyright clearance as early as possible if this is the case. It should however be noted that thesis chapters comprising discrete articles/publications must be formatted according to a consistent style within the body of the thesis and not according to publication formats. Usually journals permit reproduction of accepted manuscripts of articles that are not in final publication format or submitted versions for those that have not proceeded to final peer review.

Candidates can change their decision to present their thesis in the thesis with publication format and revert to a monograph format during their candidature (for example, if results do not go as expected and are not deemed publishable), as long as the decision does not impact on the time to completion and the thesis submission is within the doctoral guidelines.

## STRUCTURE OF THESIS WITH PUBLICATIONS

Thesis structure will vary depending on the number of research papers to be included. A thesis with publications may consist of a combination of published and non-published chapters. The thesis may therefore include papers that:

- Are in the (final) process of being prepared for publication in a peer-reviewed journal (in prep.)
- Have been submitted for publication in a peer-reviewed journal but not yet accepted (in review, including in revision after reviewers' comments)
- Have been accepted for publication in a peer-reviewed journal but not yet published (in press)
- That are published in a peer-review journal, edited book chapter, or equivalent.
- That are in exhibitions, site specific installations, film, video, scores (with exegesis)

Some chapters may include work that is not publishable, but which nevertheless contributes to the subject body of knowledge and is thus admissible for doctoral research. A doctoral thesis with publications may therefore partly or (nearly) entirely comprise research papers.

Notwithstanding the previous paragraph, the thesis must have an overall introductory chapter which outlines the topic, justifies the research, identifies research objectives and outlines the thesis structure, indicating those chapters that have been written as papers for peer-reviewed publication.

Before the start of each chapter which represents a research paper or publication, the candidate must complete and include a DRC 16 'Statement of Contribution – Doctorate with Publications/Manuscripts'. The DRC 16 outlines the student contribution, authorship, intended target journal and the status of the publication.

The research paper/manuscript should be presented in the same form as they were presented, or intend to be presented, for the target journal, with exception that the referencing and text formatting should be standardised throughout the thesis and must be in the body of the chapter.

The candidate should outline the links between the chapters/research papers. A chapter comprising an article will necessarily include an opening paragraph linking with the preceding chapter and/or a closing paragraph linking to the next chapter, in which the overall fit of the article is set clearly within the body of research that is the doctoral thesis.

The candidate must ensure that all methods used in the body of research for the thesis are clearly described in the thesis. These are usually contained within the method sections of the corresponding papers. However, appendices should also be used to outline or expand upon methods that may have been abbreviated for publication. Any data and discussion that was also abbreviated to conform to the strictures of the publication process, including information published as supplementary material should also be included in appendices to the thesis. If appropriate, it is also acceptable to have unpublished chapters that may focus on a methodology, or set of results, but also the methodology chapter (or parts thereof) may be published. Unpublished chapters are entirely admissible in a thesis with publications. The thesis introduction should clarify what chapters are published and they should be referenced accordingly.

The thesis should conclude with a final chapter providing a synthesis of the work as a whole presented in the body of the thesis. It is important that discrete published chapters are brought together in this coherent synthesis to demonstrate the overall contribution to knowledge provided by the body of research within the thesis. Final overall conclusions revisiting the research objectives draw the thesis to a close at the end of the synthesis, or as a short, discrete chapter according to preference and disciplinary practice.

Formatting of the final thesis may be a challenge as the thesis should be a whole, presented in the same font and format, so figures and tables have to be renumbered and references consistently formatted.

The thesis with publications must still work as an integrated whole, address a significant research question or questions, and present a clearly identified original contribution to knowledge of the subject with which it deals.

## AUTHORSHIP OF THE PUBLICATIONS

The authorship of publications is determined based on the APA authorship guidelines, which also highlight that the supervisors are NOT automatically the authors on all publications arising from the candidate's research for the doctorate. Only supervisors who have contributed sufficient intellectual knowledge to an academic paper that is part of a doctorate with publications should be included as co-authors of that academic paper. Authorship of publications is decided by discussion and agreement between the supervisors and candidate.

In some cases, the candidate may be the sole author of a publication(s). Where the candidate is a joint author with supervisor(s) and/or others, the contribution by the candidate is normally expected to be in the capacity of first/primary author. Multi-authored papers in a thesis must have a *substantial* and *significant* contribution by the candidate. The principal supervisor signs the 'Statement of Contribution: Doctorate with Publications/Manuscripts (DRC 16)' specifying the candidate's contribution. To protect the interest of candidates, it is important that authorship is discussed at an early stage of candidacy, ideally with the involvement of an independent party, such as the unit postgraduate coordinator, with an ideal context being the confirmation process.

Candidates are advised to fully reference previous publication of their own sole-authored work, including graphs, tables and images that they themselves have generated. Any other intellectual content must be fully and appropriately referenced to the person(s) that supplied them. They are then able to sign a statement that the thesis is their own work.

## EXAMINATION

The candidate is expected to have a working knowledge of all parts of the thesis, and to be able to answer questions about the thesis as a whole in the oral examination.

The University sets the standard by which theses are examined, and acceptance of any part by a publisher does not necessarily mean that it meets examination standards. Examiners will be instructed to examine all parts of the thesis with equal rigour and may request major or minor changes to any part of the thesis regardless of whether it has been published or not. Material included in a thesis with publications is clearly of publishable quality, but the candidate's understanding of their body of work in its constituent parts, as well as the whole, must be examined.

Whether a candidate submits their thesis in traditional monograph form or with publications, examiners will still be asked to examine the thesis following the same guidelines:

- That the candidate shows familiarity with, and understanding of the relevant literature
- The thesis provides a sufficiently comprehensive study of the topic
- The research questions have been identified
- The methods adopted are appropriate to the subject matter and properly applied
- The research findings are documented and explained coherently
- The thesis as a whole makes an original contribution to the knowledge of the subject with which it deals, and the candidate understands the relationship of the thesis to the wider context of the knowledge in which it belongs.

It is advisable for supervisors to select examiners who are familiar with the *Doctorate with Publications* format if at all possible.

## FREQUENTLY ASKED QUESTIONS

### *Which is of more value? A TwP or a monograph?*

- For the examination process there is no difference. Some candidates may find it beneficial to have published papers in their thesis for subsequent job opportunities or for applications for a post-doctoral research position. An examiner will not see a monograph of lesser value if it meets all the criteria for doctoral studies.

### *How do you structure a TwP?*

- It is similar to a monograph. Introduction chapter; followed by the literature review (which may or may not be published), then one can have a methodology chapter, but it is not required; and then the chapters which may or may not have been published already (in prep/review/press/published). The last chapter is the discussion or synthesis where the whole thesis and research must be discussed and the novel contribution covered.
- Chapters may require additional introductions and conclusions to ensure clarity of relationship with broader thesis.

*Each published article typically describes literature, methods etc. So how do you avoid repetitive writing across the thesis chapters?*

- This cannot be prevented, but the candidate should try to minimise where possible. Although a paper may have been published, it will still be 'examined' as part of the overall thesis, and repetition will be taken into account by the examiners.

*How does a New Zealand TwP measure up against a doctorate (usually by monograph) in the U.S.?*

- There is no difference. The same academic principles (e.g., original contribution to knowledge etc) apply to both versions. The required word limit still applies.
- Even if much of the content has been published in peer-review outlets the thesis must still pass as a doctorate (an original, coherent contribution as a body of knowledge to the discipline).

*Is different work involved in a TwP compared to a monograph?*

- Yes. One has to plan the chapters as papers, start writing earlier in the doctorate and while writing the thesis, submit and revise previous chapters/ papers as per the reviewer's comments. Once a paper is submitted, control is in the hands of the journal editors.

*Is there anything to prevent you from publishing while presenting your thesis in a monograph form?*

- No not at all.

*Is there a minimum or maximum number of publications per thesis?*

- No. It can vary, often only one chapter is actually published, others maybe under review, and some submitted. Generally, it is expected that there are between two and six chapters which are in published format (in prep/review/press/published).

*Is it more challenging to produce a TwP when conducting research from a mixed method or humanities approach?*

- Potentially. This option is most likely to be useful in cases where a student has already some experience in producing articles or reports and therefore seeks to pursue a TwP given familiarity with this genre. However, it may be more difficult to ensure a coherence of work around an overarching research question in these fields.

*What are the rules around authorship? Does the doctoral candidate always have to be the lead author? What if the journal doesn't use a first author system, and instead lists them alphabetically?*

- It is expected that the candidate is the lead author. In Humanities and Social Sciences, the usual practice is to rank authors alphabetically unless one author is a clear lead author, in which case the position of names can at times be determined by contribution. Massey expectation is that authorship is determined based on the APA authorship guidelines.

*Does qualitative research (that is done from a science discipline) sit well with publications?*

- There is no reason why not. It will be important to select journals carefully and choose the most appropriate publication outlet for the work.

*If your supervisor is new to TwPs, who else can a student go to for advice (for both the student and the supervisor)?*

- GRS, and they can refer the student to staff whose students regularly do TwP.
- Postgraduate Coordinators in the academic units.

*How are ethics managed and integrated into the TwP process?*

- There is no difference. If a researcher is working with people or animals, the ethics process needs to be addressed and discussed in the papers/ chapters.
- There are ethical considerations with regards to co-publishing that need to be considered (i.e. ensuring student work is appropriately recognised in publications).

*Monograph vs. TwP - Is this a personal decision or does it have to be justified in another way?*

- The student and supervisory panel should discuss the format of the thesis in the provisional year. Supervisors and students should both agree that TwP is the best avenue.

*When do you decide which journal to submit to? How do you make that decision? How do you make sure that you stay productive in that process?*

- The journal should be discussed with the supervisors. Once one paper is submitted the candidate should start the next one or work on the literature review.
- Ensure good quality publication outlets (well known, well ranked) to ensure strong reviews and to maximise student benefit.

*What are some of the challenges associated with TwP? And what tips/advice is there for overcoming those challenges?*

- Staying within a time frame and not extending the Doctorate while waiting for papers and reviews. Keep productive while waiting for an Editor's reply.

- Dealing with reviewer's comments can be challenging, but your supervisor(s) should provide support, and this provides good preparation for examiners comments.
- Formatting of the final thesis may be a challenge as the thesis should be a whole, presented in the same font and format. So, figures and tables have to be renumbered and references consistently formatted because the thesis is a publication in its own right and as such should be a cohesive document.
- Ensuring the student retains a birds-eye view of the thesis as an overarching project that, with all parts working together, makes an original contribution to the field.

*When you decide to do a TwP, is there a formal process for that, or is it simply an agreement that you make with your supervisor/s?*

- There is no formal process. Just an agreement between the student and supervisors. However, there are forms that need to be completed as part of the submission of the thesis which attributes the contribution of the candidate and other authors for those chapters in the thesis that are publications or in the process of publication (in prep/review/press).

*If in doubt, please contact your supervisor.*