



TUS

**Technological University of the Shannon:
Midlands Midwest**

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TUS Article-based PhD Thesis/PhD Thesis by Publication 2024 - 2026



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1.0	Approved by Academic Council (20/062024)

TUS Article-based PhD Thesis/PhD Thesis by Publication

- 1.0 An article-based PhD thesis/PhD thesis by publication comprises a number of interrelated but independent research articles that are produced by the PhD candidate while registered as a research student. Article-based PhD theses/PhD thesis by publication are held to equivalent standards of scholarly excellence as any other forms of theses produced for any other doctoral/NFQ Level 10 degree. An article-based thesis/PhD thesis by publication constitutes a collection of articles which normally encompasses published articles or papers submitted or accepted for publication in peer reviewed journals of international standing. Crucially, to constitute an article-based PhD/PhD thesis by publication, these articles must add up to a sustained contribution to a clearly defined research problem and represent the culmination of a coherent and integrated programme of supervised research.
- 2.0 The submitted work must constitute an independent and original contribution to knowledge, and there must be a clear statement about the specific contribution made by the student in relation to all elements of the submitted body of work. When co-authored papers are included, this statement should clarify the students' contribution relative to all other co-authors. The submitted work must also correspond to Table 2 TUS Adopted Award Standard as per the *TUS Postgraduate Research Regulations 2023-2026* and to Level 10 on the National Framework of Qualifications (NFQ).
- 3.0 Ultimately, an article-based PhD thesis is equivalent to a monograph thesis wherein the following must be demonstrated;
 - a) The candidate makes a significant contribution to knowledge and scholarship
 - b) The candidate demonstrates original and critical thought
 - c) The candidate displays an appropriate depth and breadth of knowledge and understanding of the relevant field(s) of study in the thesis and at the viva voce examination
 - d) The candidate has gained significant expertise with respect to basic and advanced methodologies and analytic techniques
 - e) The thesis has an appropriate structure and writing style
 - f) The work is peer reviewed and is suitable for publication in academic journals that are peer-reviewed.

- 4.0 The minimum number of articles usually accepted by the TUS for this type of thesis is three, of which at most one article can be replaced by two peer-reviewed conference papers where the student is the first author/main author or in the case of co-written work, the majority of the work in each conference paper is done by the student. This maintains the rigour of the degree. The conference papers should also be original, peer-reviewed and they must be full papers. Disclosures should also be made in this instance of the work of the student relative to other authors (where work is co-authored).
- 5.0 As academic conventions associated with each discipline sometimes differ in respect of: (i) authorship; (ii) the minimum number of articles required; and (iii) the appropriate word count within published articles, faculties or departments in TUS may develop specific guidelines that must be adhered to by candidates who choose the article-based thesis/PhD thesis by publication format. These guidelines should be drafted by individual faculties' research committees in conjunction with the Graduate School and must be discussed at the Postgraduate Studies and Research Subcommittee and approved by Academic Council. Any such guidelines must also respect the minimum number of articles to be included as set out in section 4.0. Disciplinary conventions regarding authorship should be discerned and made explicit to students, supervisors and examiners. In all cases, the student's contribution to each article must be made explicit within the thesis.
- 6.0 The articles form a substantive element of the thesis. However, the thesis should also encompass an introductory chapter, a detailed explanation of the research question, aims and objectives, relevant supporting and background literature, methodological overview and rationale, and a concluding chapter. A full bibliography is also necessary. The recommended length of these chapters is 30,000-40,000 words in length.
- 7.0 The articles presented shall deal with the same research question or set of linked questions. A detailed discussion of each paper and the context and relationship of the work described in each should be provided in the thesis, so that the overall research contribution is clear to the student, supervisors and examiners.
- 8.0 The thesis submission, in all its elements, must demonstrate a thorough understanding of research methods that are appropriate to the discipline.

- 9.0 The full length of an article-based PhD/PhD thesis by publication is the same as a structured/unstructured PhD (e.g. maximum 100,000 words including articles).
- 10.0 The articles must be published, pending publication or accepted for publication in peer-reviewed academic journals. The exceptions to this are specific disciplines or sub-disciplines which will accept a maximum of two conference papers in lieu of one published paper as per stipulations in 4.0. Articles that are in draft form are excluded from the minimum requirements set out in section 4.0. but can still be included in the thesis. Articles must be published in journals that are deemed to be non-predatory and of good international standing, that are appropriate within specific disciplines, and should be peer-reviewed. It is recognised however that different disciplines may have specific outputs that are deemed as equivalent to articles that are published, pending publication or which are accepted for publication. Guidelines around this should be developed by faculties' research committees in conjunction with the Graduate School and should be discussed by the Postgraduate Studies and Research Subcommittee and approved by Academic Council. In all cases, the integrity and rigour of the degree must be upheld.
- 11.0 The outputs included in the thesis should normally be a full peer-reviewed research article. Articles should not be replaced by an abstract, extended abstract or a poster. In some circumstances however, a peer-reviewed book chapter, may be deemed acceptable for inclusion. The book must be published by a respected, non-predatory publishing house and there must be a clear reasoning stated in the thesis why the chapter is accepted specifically with regards to the chapter's main argument, what it brings to the overall dissertation and a separate declaration why this was published as a chapter and not an article.
- 12.0 An article that is 'pending publication' is defined as an article that has been verified by a letter from the journal editor stating that the article has been accepted in a final form and is awaiting publication in a specified forthcoming issue/volume. The signed letter of verification must be included as an appendix in the thesis.
- 13.0 An article that is 'accepted for publication' is defined as an article that has been reviewed by the journal editor and is deemed to be suitable for publication at a future date subject to minor corrections. A signed letter confirming the status of the article must be included as an appendix in the thesis.
- 14.0 Conference papers are not normally included, save in special circumstances where disciplinary conventions deem them and/or other non-traditional outputs

to be equivalent to published articles. The decision as to whether full peer-reviewed conference papers published in specific conference proceedings are considerable as equivalent to an article in a peer-reviewed journal in terms of their contribution to the minimum requirements of the article-based thesis (Section 4.0) is to be made at Faculty level in consultation with the Graduate School and the Postgraduate Studies and Research Subcommittee. Where conference papers and/or other outputs are deemed acceptable due to such conventions, they must be peer-reviewed and there should be a clear and definite rationale for their inclusion.

- 15.0 Publications that essentially report the same data or findings to separate readerships are considered to be a single publication.
- 16.0 It is expected that the articles presented shall deal with the same research question or set of questions.
- 17.0 The number of articles will depend on the scope of the work and on the candidate's contribution to them. In cases of multi-authored articles, in addition to the statement at the start of each paper, candidates are required to provide a signed statement in an appendix specifying their contribution to each article. The statement must be verified and signed by the principal supervisor(s) and any co-authors. This is done to uphold the integrity and robustness of the degree.
- 18.0 Joint and co-authorship is encouraged as a general principle. However, the student must make this explicit in detailed statements in the introduction to the thesis which precisely describes the respective contributions of themselves in respect of each author. The prevailing principle is that the PhD by publication/article-based PhD thesis should constitute an original contribution to the field by the student and demonstrate that the student, through their contributions to the work in the thesis, has achieved the appropriate programme level learning outcomes and criteria as outlined in 2.0, and this is core to the Examiners' assessment of the work.
- 19.0 There are two general structures of the Article-based PhD thesis/PhD thesis by publication which are as follows:
 - a) The "Sandwich" model, i.e., an introductory and conclusion chapter encase the articles that are positioned within the centre of the thesis, such that the thesis is organised as:
 - An introductory chapter where the candidate's work is positioned within existing scholarship. This chapter will explicitly articulate the key research question(s) addressed by the candidate, situate the work as a whole within contemporary literature and debate, and

describe the chosen methodological/theoretical framework, as appropriate;

- Chapters corresponding to each of the included articles, in which a relevant literature review, theoretical framework (if appropriate) and detailed methods, results, and discussion are presented as appropriate;
- A concluding chapter which draws the substantive material in the included articles together to demonstrate their coherence and the extent of their contribution to knowledge;
- A full bibliography at the end of the thesis;
- Any appendices that are significant to the work.

b) The “2-part” model (i.e., a multi-chapter comprehensive summary precedes the included articles) such that the thesis is organised as:

- Part 1: Comprehensive summary
 - An introductory chapter where the candidate’s work is positioned within the existing scholarship. This chapter will explicitly articulate the key research question(s) addressed by the candidate;
 - A literature review and/or theoretical background chapter where the candidate situates their work as a whole within contemporary literature and debates;
 - A methodology chapter where the candidate provides an account of an overarching methodology and rationale to connect the works described in the included articles;
 - A summary of articles chapters where the candidate provides a synopsis of each article and discusses their relevant contribution(s) to the thesis as a whole;
 - A concluding chapter, which draws the substantive material in the articles together to demonstrate their coherence and the extent of their contribution to knowledge;
 - A bibliography for the comprehensive summary.

- Part 2: The included articles
 - Each article is presented in the order that the candidate intends for them to be engaged with as an integral part of the thesis. The articles include relevant literature review and detailed methods, results, and discussion as appropriate. The individual articles are presented here with an understanding that their integration has been described in Part 1.
 - Any appendices that are significant to the work.
 - Please note that the word count of maximum 100,000 words in total prevails regardless of structure as per section 6.0. The article-based thesis/PhD by publication should also correspond to guidelines on PhD submission including font size, line spacing and margins as supplied by the Graduate School.

20 The Supervisors and the Internal and External Examiner(s), must be familiar with the appropriate academic regulations and prevailing norms for the conduct and presentation of research within the relevant discipline that allows for submission of an article-based PhD theses/PhD theses by publication.

21 In all cases, a key consideration for examiners is whether the quantity and quality of the work presented represents an appropriate level of scholarly output for a Doctoral thesis (NFQ Level 10) in the discipline concerned.

22 Recognising that disciplinary conventions can impact on the nature of included work(s) in an article-based thesis, to support the student, faculties and the Graduate School in deciding whether an article-based thesis meets all relevant regulatory requirements, prior to the submission of the article-based thesis, the thesis must be reviewed by an internal quality reader. The reader shall be an academic within the Faculty in which the student is registered who meets the institutional requirements for principal supervision of Doctoral candidates. The principal supervisor of the doctoral candidate should nominate an appropriate reader via the submission of the appropriate form for review and consideration by faculties' research committees. The reader cannot act as an internal quality reader for more than one Doctoral Candidate being supervised by the same principal supervisor within a three-year period and must not be or have ever been a member of the student's supervisory team. The reader may however act as the chairperson of the viva voce examination. Readers shall, within 3 weeks of accepting the invitation, submit their assessment using the appropriate to the Graduate School. In the interest of the student, the reader

may agree to meet and discuss their evaluation with the student and/or the supervisor(s).

- 23 Students who opt to complete an Article-Based PhD thesis/PhD thesis by publication are also subject to a viva voce examination. The viva constitutes the ultimate assessment of the quality of the thesis. Specific guidelines for this examination for students opting to complete Article-Based thesis/PhDs by publication shall be prepared by the Graduate School in consultation with faculties' research committees, discussed by the Postgraduate Studies and Research Subcommittee and approved by Academic Council.
- 24 The *TUS Postgraduate Research Regulations 2023-2026* and associated processes and procedures laid down by the university are operationalised for the article-based PhD/PhD thesis by publication programme. This includes principals, governance and policy, award types, standards and processes pertaining to programme entry, application and registration, responsibilities of the student, faculty, and supervisors, qualification requirements, progression, confirmation and transfer, the approval of external and internal examiners, examinations and reviews and disputes.
- 25 Training for staff and students on article-based PhD thesis/PhD thesis by publication including examinations processes and the structure of the dissertation shall be provided by the Graduate School in conjunction with Research Committees at faculty level.