computing@glyndŵr

Research Proposal for a Masters Dissertation

This is an **optional** template. Other proposal formats may be acceptable. You do **not** *have* to follow this structure exactly – it will depend on the nature of your project – but you probably **do** have to include much of the detail suggested, however you present it.

**[Obviously, if you *do* use this template, be sure to remove ALL of these guidance notes before you submit it: you don’t want these counting towards your wordcount!]**

*Main text: approximately 3,000 words total, not including abstract, appendices, headings, figures, tables, captions, references, etc. Assume you’re writing the proposal to be read by an experienced computer scientist, but perhaps not one explicitly expert in the field you’re proposing to work in. So you may need to introduce specialist concepts without assuming depth of knowledge. Also think carefully about the structure and flow of this document; it should guide the reader towards, and through, the mechanics of your intended work, whilst clearly arguing its purpose and worth.*

# [Your Name]

## [Your Programme (MSc in …)]

# [Your Project’s Title]

## [Your Project’s Subtitle]

(Optional)

# [Date (of Proposal)]

# Abstract

# Introduction

*In this section, you’re essentially getting the reader familiar with what you’re hoping to do. In the next section, ‘Literature Review’, you’re describing what others have already said and done in the field and, after that, ‘Research Hypothesis and Questions’, you’re straight into what your contribution’s going to be. So this is really the only chance you’ve got to lay the necessary foundations for your project. Crisp, concise, relevant and clear, please!*

*Approximately 400 words for this Section 1.*

*You could break it down like this …*

## Background

*Setting the scene. Explain the technological area you’re going to be working in; why it’s interesting and relevant, its key features, applications, terminology, etc. Make sure the reader knows enough to read on with confident understanding …*

## Scope for Research

*What’s the ‘problem’ you’re looking at? Identify the particular ‘research gap’ you’re going to fill or the ‘knowledge boundary’ you’re going to extend. What’s the PRIMARY research here that you’re intending to do? Why will it be useful? Who would be interested? Why are you a good person to do it?*

## Limitations

*But be clear and honest about what you’re NOT going to be trying to do. You have only limited time and other resources. Remember this is a ‘taught masters’, not a ‘research masters’ and certainly not a PhD. Your contribution is likely to be simple and focused.*

## Ethical Issues

*An initial look at areas that are likely to be troublesome and and/or warranting action in the ‘Ethical Approval’ section that follows. Focus on the issues though, rather than dealing with them in this overview.*

*DON’T waste words in this introductory section outlining the structure or content of the rest of the document (as some academic papers do). The Abstract (when written) will have already summarised that and the detail we can read for ourselves!*

*(However, the good news is that some parts of this section, with appropriate modification, can also feed into your final dissertation’s introduction.)*

# Literature Review

*[Note that, in this template, the literature review is presented as a separate section.]*

*A (so far as the word count will permit) comprehensive analysis of what other reputable research sources have to say on your subject area, its background and ‘state-of-the-art’. Also an opportunity to extend and explore critical material introduced in the introduction – but always using credible reference material to support anything you say or claim. This section needs to take the reader to the point of understanding your research hypothesis and questions that follow (and finding them credible and worthwhile).*

*Approximately 1,000 words for this Section 2.*

*Probably needs to be broken down into sections/subsections for each topic to be covered. Entirely dependent on your chosen project, obviously.*

## First Topic

## Second Topic

## Third Topic

:

## … Analysis and Conclusions

*So where has this got you? What does it all mean in the context of your proposed research?*

*(This section, with appropriate expansion, can also form part of your final dissertation’s literature review.)*

# Research Hypothesis and Questions

*A summary of what exactly you’re hoping your research will SHOW.*

*Approximately 250 words for this section 3.*

*Although some brief text may certainly be useful to introduce the key points, you should always avoid waffle – and most definitely here!*

## Research Hypothesis

*A single proposition that you hope to prove (or disprove). Normally a ‘statement’ that (in an ideal, logical world) would eventually be shown to be ‘true’ or ‘false’ (although it’s probably not going to be as simple as that in practice).*

## Research Questions

*(Optional)*

*A small number of clarifying/extending questions you may also hope to answer.*

1. How …
2. Where …
3. …

*For example, you might have a research question that was essentially how ‘best’ to go about doing in practice what you’re suggesting is ‘possible’ in theory in the hypothesis – but there are many forms of clarification that these ‘follow up’ questions can take.*

*For both the main hypothesis, and any supplementary questions, imagine another researcher, in a few years’ time, referencing your published dissertation … ‘<Your Name> [2021] showed that …’. How does that sentence end?*

*(Again, this section, with appropriate expansion, can form part of the corresponding section in your final dissertation.)*

# Methodology

# Ethical Approval

# References

*In IEEE format. CREDIBLE sources of justification for any claims made anywhere in this document.*

*Most references are likely to be used in the ‘Literature Review’.*

*Word count doesn’t matter here.*

[1] …

[2] …

…

# Appendices