



## **Guidelines for the Formulation and Submission of a Research Proposal**

### **Master of Science (by Research)**

The aim of the research proposal is to identify a viable topic and a plan of approach using the research proposal template below. The student is required to demonstrate that a certain amount of reading and realistic planning has been carried out. These should lead to feasible aims and objectives that should be obtained within the stipulated period of study. Applicants must prove that they understand a particular problem in their profession/discipline in which they have done their research, are able to analyse and set it out logically, are able to arrive at logical conclusions or a diagnosis, and are then able to make proposals for the improvement/elimination of the problem (MQF Level 7 – Malta Qualifications Framework 2010).

Special attention should be given to the enclosed 'Evaluation Checklist for Research Proposals'. This will help the student evaluate the proposal using similar criteria to those used by the Masters by Research Committee.

The detailed research proposal should be around 3000 words (excluding references and appendices). The student should provide a table of contents, including sub-headings (if any) and page numbers. It is strongly encouraged to prepare and work on the proposal at least six months ahead of intended submission.

The order of the template suggested below may be changed and certain sections may be combined; additional points may also be added. The suggested headings serve as signposts to indicate to the evaluator:

- What the research problem is;
- How the candidate intends doing the research;
- What the outcomes could be; and
- The implications of the research for the profession/science.

#### **1. Title**

The title should be concise, describing the nature and scope of the project. Select appropriate key words or phrases. Do not start a title with a present participle.

#### **2. Statement of research problem**

This is the heart of the proposal. This should include a sentence or a paragraph to describe exactly what the problem is.

### **3. Background to the research problem**

Since the statement of the problem should be very brief, it is necessary to explain separately what the background to the problem is. Clarify the area of concern, or clarify the needs that justify the research (this could be a sub-heading). Why is it a significant topic? What contribution is your work expected to make? Any information that helps the evaluator to understand the problem may be included. Indicate why you believe that it is, in fact, a researchable problem. This section could be combined with the literature review, or form a sub-section of it.

### **4. Literature review**

This part of the proposal should anchor your research topic in the particular area of academic debate pertinent to the field. An adequate literature review is required in all research proposals. The length is not important. Keep it as succinct as possible. You should:

- Provide evidence to the M.Sc. (by Research) Committee that you are well acquainted with recent and current research in the field of study;
- Prove that the dissertation will not duplicate past or current research; and
- Indicate how the intended research relates to similar and past research.

In other words, the literature review positions your research within the existing body of knowledge. If you want to take up a theoretical position or a specific concept, identify which positions and concepts are useful and how you will apply them to achieve a particular result or conclusion.

### **5. Hypotheses or research questions**

If you state hypotheses, indicate whether they are statistical or non-statistical hypotheses. Depending on the nature of your discipline, it may not be necessary to base your research on hypotheses. You may list certain fundamental research questions or underlying assumptions fundamental to your research. These may then be fine-tuned later.

### **6. Objectives of the research**

Clarify the aims and objectives of the research. Where feasible, they should be numbered. They will be evaluated in terms of whether the objectives are well articulated and whether they are realistic and attainable. In writing the proposal, it is important to remain focused on the objectives, always linked to the research problem.

### **7. Research design and methodology**

Outline how you will approach your topic. Demonstrate that your chosen method or approach will serve to advance your argument. Describe how you plan to gather data. While you may not be able to give final details of your methodology at the research proposal stage, it is important to give a sound provisional indication so that the evaluator is satisfied that your methodology is relevant and acceptable. How will you ensure reliability?

Clarify your method of investigation, e.g.:

- Research Tools and Instruments – Validated? Adapted? Sensitive to study population?
- Personal interviews
- Focus groups
- Laboratory experiments
- Mathematical modelling
- Design techniques, etc.

Indicate your sampling methodology, e.g.:

- Anticipated or approximate size of sample
- Population
- Experimental and control groups
- Prevention of bias, etc.

Indicate statistical methods and substantiate why you intend using the proposed specific statistical methods.

Indicate whether ethics approval is required, and consequently if you intend to apply for ethics clearance through the Faculty Research Ethics Committee (FREC).

The proposal should make clear if the research instruments or tools are validated. These would include questionnaires, clinical tests and scores, outcome measures and similar. A selected validated instrument must have a cited reference to support it.

## **8. Delineation of the research**

Is this section relevant? Is there a boundary surrounding your research? Is there a specific context? e.g:

- a study on specific group of people or professionals
- a particular establishment or hospital
- a study on specific type of food category or cell constituent

It might be helpful to indicate what will not be covered by your research.

## **9. Significance of the research**

Indicate the significance of the research. Why is it important? Whom, or what aspect of the profession/discipline/science, will it benefit? A statement will suffice.

**10. Expected outcomes, results, findings, contributions of the research**

What are the expected outcomes of the research? What do you wish to ultimately achieve? What would the contribution to knowledge be?

**11. Timeframe**

The various tasks for researching and the writing of the dissertation should be identified along with specific dates in which it is anticipated these tasks will be accomplished. This timeframe would need to be constructed with your supervisor and displayed in table or Gantt chart form.

**12. Costings/budget/funding**

Any research related expenses should be identified. An indication of acquired funding or any plan to acquire funds should be identified.

**13. Keywords**

Give six *specific* keywords or phrases, which will be used to index your research in relevant databases.

**14. Reference list and bibliography**

This is a list of the literature referred to in your research proposal. It will be assumed that you have read the references you list. Distinguish clearly between a list of references cited and a bibliography. The latter includes all material consulted, including background reading not necessarily cited.

The research proposal does not need to be finalised at the stage before registration. It will be finalised on confirmation from UREC. However, the prospective student is expected to contact immediately the Masters (by Research) Committee via the relevant supervisor if there is a substantial departure of direction from the previously proposed study. The supervisor will guide the Committee on this matter if it arises.

Dissertation supervisors and Master by Research students are advised to consider registering their study if it involves a clinical/interventional trial. This will facilitate the publication of peer-reviewed papers in journals of significant impact factor. More information can be sought on:

<https://www.who.int/ictrp/en/>

<http://www.icmje.org/about-icmje/faqs/clinical-trials-registration/>

*The Master (by Research) course at the Faculty of Health Sciences, University of Malta is regulated by the Degree of Master of Science - Bye-Laws of 2012 for the Degree of Master of Science and the General Regulations for University Postgraduate Awards, 2008:*

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*and*

[https://www.um.edu.mt/\\_data/assets/pdf\\_file/0013/10831/Postgraduate\\_Harmonised\\_Regulations.pdf](https://www.um.edu.mt/_data/assets/pdf_file/0013/10831/Postgraduate_Harmonised_Regulations.pdf)

## **EVALUATION CHECKLIST FOR RESEARCH PROPOSALS**

This checklist is intended as a guide for evaluators to enhance harmonisation in the approach to evaluate research proposals. You may wish to tick a criterion, put a cross next to it or indicate not applicable (NA). Your final comments would be based on this check list and submitted to the Faculty Office accordingly, indicating viability, conditional viability, or not viable.

### **1. Problem identification**

- 1.1 Is the problem/line of enquiry clearly defined?
- 1.2 Is the basic research problem well formulated, or is it poorly and vaguely structured?
- 1.3 Is it briefly and concisely stated?
- 1.4 Does the researcher indulge in jargon which obscures rather than explains what the research problem is?

### **2. Background to the research problem**

- 2.1 Has there been an adequate description of the background to the problem either under a separate heading or as part of the literature?
- 2.2 Has the area of concern regarding the problem been identified, i.e., has the need that exists to research the problem been clarified?
- 2.3 Have the basic terms and concepts been clarified, either under a separate heading, or as a suitable sub-heading?

### **3. Literature review**

- 3.1 Is there clear evidence of an adequate review of the literature?
- 3.2 Is there a theoretical engagement with the relevant literature?
- 3.3 Does the literature review provide an adequate theoretical framework for the study?
- 3.4 Has appropriate literature been examined in order to provide the background and rationale to the problem and its formulation?
- 3.5 Have relevant sources been used to identify the problem?
- 3.6 Does the literature review correspond with the aims of the research?
- 3.7 Are the cited references acceptable?
- 3.8 Are textual references and bibliographic citation correct?

#### **4. Conceptual framework**

4.1 To what extent are the conceptual framework and theoretical assumptions clearly stated?

4.2 Has the study been clearly delineated under a separate heading or sub-heading, i.e., have the boundaries of the research been stated?

4.3 Has a suitable hypothesis (or hypotheses) been formulated, or has a suitable research question (or research questions) been stated?

#### **5. Objectives**

5.1 Have the objectives been stated clearly?

5.2 If there are more than three objectives, have they been divided into main and subsidiary objectives?

#### **6. Research design**

6.1 Is the project and research design well structured and outlined?

6.2 Has the research methodology been articulated clearly?

6.3 Is there a clear correspondence between the stated aims of the research and the chosen methodology?

6.4 Is there a mere statement of the qualitative or quantitative research methods to be used, or is there justification for their use?

6.5 Have the sampling methodology and data collection been adequately clarified?

6.7 Is the analysis appropriate to the aims of the research?

#### **7. Significance**

7.1 To what extent will the research analyse and diagnose a particular problem, set it out logically, arrive at conclusions and make proposals for the solution of the problem?

7.2 Why is it important to undertake this research? Whom will it benefit or to whom will it be important?

7.3 Is the proposed research likely to promote further investigation within and/or across disciplines and fields?

7.4 Has the expected outcome (or outcomes) of the research been clearly identified?

## **8. Feasibility**

8.1 Is the problem researchable and is it feasible? Do the preliminary data and available resources support its feasibility?

8.2 Does the candidate's academic profile or potential support his/her ability to accomplish the project?

8.3 Does the supervisor (or supervisors) have a research and supervision profile to support the candidate?

## **9. Other general comments**

Is the proposal well structured or poorly compiled? If the latter, what should be done to make it a well-structured proposal?

## **10. Language**

Has the research proposal been proofread and edited?