Report and Viva requirements.

Subject: MSc Report and Viva - My Expectations

Dear All,

You are receiving this email as I am your MPR and Viva marker. The intention of what has been outlined below is to help you understand my expectations for the report as well as for the viva and help me understand what you have done in this research. I believe that by doing so you will be able to achieve best possible grade/marks.

Please note that the expectations below aren't very different from the general marking approach as we all will be marking for the same thing, how you have filled the research gap and what your specific knowledge contribution is/are.

Thus, I believe by outlining key expectations will help me run your viva smoothly as you will know what exactly I am looking in your report and in viva presentation.

Research Gap

Your review should identify critical knowledge gaps and specify which breach you plan to close. Precisely defining the discrepancy between what we know and what we need to know (with respect to the objective of your project) will help you precisely define your research gap.

One of the main weaknesses I've seen in your MPR reports is the lack of explicit link between the reviewed papers and the gap identified.

I suggest that you address this weakness in your final report by including a summary of the reviewed papers by taking concept centric or author centric approach using a structure similar to the one indicated below.

Please feel free to change the structure below to accommodate any additional details such as "possible requirements (e.g. knowledge areas/tools to look at)" for addressing any weaknesses as highlighted by the articles that you reviewed. When you identify such requirement indications, they will greatly map to the requirements of your solution design (artefact).

Article	Scope/focus (in line with concepts/key areas in your research topic)	Particular techniques/methods used in the solution (artefact)	Strengths of the proposed artefact	Weaknesses/issues of the proposed artefact*

*weaknesses/issues identified (with respect to the objectives of your study) here should be used to define and describe the research gap that you address in this research.

Just saying "accuracy/low accuracy" as the issue will not help you to precisely define any research gap. You will need to dig deeper to identify and define the root cause of having low accuracy – whether it's related to the issues in the data pre-processing and if so, what was the exact issue? is it about feature extraction/ does the study extract correct set of features? etc.

Dr. Tharaka Ilayperuma, Computing department, School of Digital, Technology, Innovation and Business, Staffordshire University

Make sure you properly ground your research gap by precisely refereeing to the articles that you reviewed as indicated above.

Design Chapter

In the design chapter, I would like to see how you plan to close the breach you identified during the review.

The requirements for the design of your artefact should be extracted from the articles reviewed. This will help you more precisely ground your artefact requirements and show the scope of the academic challenges in defining the artefact. It will also assist you in showing your explicit knowledge contribution.

You can make these requirements more explicit by summarising them using a structure similar to the one given below (adapted from Daniel Cambell's report and viva requirement's document)

Table 1: Artefact requirements

ID	Requirements	Link to research
1	Supervised neural network	Campbell (2020) identified/argued that supervised neural network can be used in addressing the issue of (the issue or one of the aspects related to your research title) ????

Further, in this section, I would like to see a **pictorial design** of your artefact (the model/method/framework, etc.,) that you propose (unless this is impossible). Please note that this is NOT about the prototype that you implement.

An example of a figure depicting an artefact can be found at (A hybrid intelligent model of analyzing clinical breast cancer data using clustering techniques with feature selection - ScienceDirect (staffs.ac.uk).

In this article, you see that initially a generic model is presented in Section 3 and the subsections 3.1, 3.2, and 3.3 elaborate on three key components of that model. Please note that this is just an example, and you are free to find other examples.

Suggestion: A possible approach will be to first identify the requirements and discuss each requirement in detail in separate paragraphs. At the end of this discussion, you can summarise the requirements as indicated in the table above. After this, you can present the design of your artefact by clearly showing how different parts in your artefact maps to the summarised requirements. You can precisely point to the part(s) in your artefact to show your own contribution (the thing you do new). Again, this is just a suggestion.

Note: In any case I need to clearly see how your solution looks like with a description highlighting the requirements which is assisted with a figure to understand the nature of the solution that you propose. Please note that your solution should be inline with the title/RQs of

the project. For instance, if the title says “enhancing …….” Then you should be able to highlight in which part of your solution focused on this ***enhancement*** and how you do it.

Validating your artefact

In here I would like to clearly see how you validate your proposed solution. Again, if your title says “enhancing ….” Or “increasing the accuracy of ….”, then you should ideally be able to show that your solution *enhances* … or *increases* …. or *do whatever the key aspects indicated in your title/RQs*.

However, I understand that given the time and resources, this could be challenging. Thus, see the possibilities to do at least a controlled experiment (e.g. if your artefact is about increasing the student engagement of using VLE, doing a small survey will help you to argue that you validated your solution to at least to a reasonable level).

If your project focuses on increasing the accuracy, a way to evaluate your artefact maybe to use the same (or similar) dataset and same technique to analyse the data as used by other research that had the issue you were addressing (if it’s about increasing the accuracy, etc.,) and then clearly show that when your solution is followed, the accuracy is increased.

In any case make it precisely clear how you validate your solution

The Viva

During the viva, I will be primarily interested in knowing:

1. Your exact research gap (please don’t just say “accuracy”) and how you justified that by mapping it/them to the reviewed articles.
2. Your solution requirements and the artefact design – you need to highlight/elaborate where your knowledge contribution is (the new thing that you’re proposing).
3. How you validated your solution.

I’m also interested in knowing what your research methodology is as this is a section in your report.

The above outline elaborates on the key aspects of what we all will be looking at and they are to assist you in doing a better report. None of the above will increase the requirements because these are integral part of your research/report and these points will help you more concisely write your report.

I wish you all good luck!

Thank you,

Dr. Tharaka Ilayperuma, Computing department, School of Digital, Technology, Innovation and Business, Staffordshire University