

Final reflection - Research Methods and Professional Practice

What?

Studying this model has given me insight and information regarding the skills needed to successfully complete my final project to be awarded a MSc in Computer Science. Although many of the aspects of this module are not new to me, I have been able to gain a deeper understanding about tools such as resource selection and interrogation, data collection and analysis, and the structure of the final project that will be completed. Along with this, I have been able to explore interesting aspects of the social, legal and ethical problems that are posed within Computer Science, again building on previous work I have completed in this area. I found this study to be engaging and useful to both my academic and professional practice, and found the material to be more enjoyable than I expected. I came into the module expecting to find it rather dull and dry, but finish the module feeling satisfied in the content provided. In particular I found the information within the core reading by Dawson (2015) to be insightful and useful with regards to setting out my project.

Upon coming into this module, I wanted to achieve a higher level of confidence in my research and academic abilities. Some of these had been developed at undergraduate level, however the exact skills needed for research in computer science are different to those I have experienced before. I also wanted to use the time in this module to try and pin down what I wanted to do for my final project, so that I could use this as a real world source for my work within the module. This would act as a trial run for my actual project module while still allowing me to develop these skills throughout this module.

So What?

By studying this module, I feel like I am more prepared to complete my project module in the coming months than I would be had I not studied these topics. Although I had a general understanding of what would be required to complete the

project module, I now feel in a better position having completed this module. In particular, being able to complete both a literature review and a presentation for a project proposal has allowed me to not only gain insight on how these will need to be completed going forward, but also an idea of the sort of route I want to take for my actual project, with me deciding to focus on machine learning in secondary education.

Coming into the module, I also aimed to identify key information that will help me with my professional life. Although some of the research based information may not be too applicable to my working life, the discussions regarding the social, legal and ethical problems within computing are things I can apply to my daily work as a developer. I now understand and fully appreciate why these discussions are needed and why it is important for me, as a computing professional, to be mindful of my professional practice.

I did struggle with some of the aspects of the module, in particular the work around literature reviews. This was something that was unfamiliar to me in practice and took me some time to be able to fully comprehend how this needs to work. In order to overcome this, I spent time reviewing some literature reviews that others had completed for MSc Computer Science projects, and used the format of this to allow me to dissect not only what would be needed for my assignment, but also why it is important to fully complete this.

Now What?

Coming out of studying this module, I feel ready to complete my project module over the coming months. I am to spend the next few weeks fully embedding the learning I have done within this module to help me formulate the best proposal for my project that I can, with work starting on this shortly afterwards. In particular, the knowledge gained from the work regarding statistical analysis will make up a core part of my research, as the artefact I aim to make will require the collection of data to train a machine learning model. Having studied the need to ensure data is useful, accurate

and effective within this module, I can now move forward knowing that I have the tools to ensure that this part of my project will be well executed.

I would hope that the consequence of this is that my project work is of a high standard and allows me to graduate with my MSc in Computer Science with a good grade. It is also my hope that the studies completed within this module will allow me to explore potential future research opportunities within the field, whether they be academic or within my current work environment. For example, I currently work within local government, and the studies completed within this module may be able to afford me the opportunity to look at our computing policies and how we can ensure that we meet our obligations with this. Likewise, the research aspect may allow me to look at efficiencies that we can make to make the service better.

Conclusion

By using the Rolfe et al (2001) model for this reflection, and thinking deeply about the study that I have completed within this module, I have been able to understand the importance of the work that I have completed over the last few weeks and how important this is to both my academic and professional practice. I hope to continue to build on these skills and adopt them for my long term success.

Word Count: 942

References

Dawson, C. (2015) *Projects in Computing and Information Systems*. 3rd Edition.
Harlow: Pearson International Content.

Rolfe, G., Freshwater, D. and Jasper, M. (2001) *Critical reflection in nursing and the helping professions: a user's guide*. Basingstoke: Palgrave Macmillan.