

Reflection on Research Methods Module

<https://patrickfrm.github.io/>

Introduction

This reflection will cover what I learned throughout the research methods module coverings Units 1 to 12 and my personal and professional experience alongside it. This will include my skills that were developed from completing the three assignments due in this module. This reflection will also be including the reflections of having to resubmit coursework for this module.

Module Skills Gained

Critical Thinking

When researching for Unit 1's reflective activity on the "ethics in computing in the age of generative AI" looking through sources on AI to find recent articles on social impact I was reading news articles and needed to determine which sources were reputable and not. One source I used was by Bernard Marr who spoke on how AI would be good for the job market offering a different perspective on the alarming headlines of generative AI taking jobs citing a BBC News article saying that the jobs will be replaced. However, this was not adding the context of the jobs not being replaced one for one and that there will be winners and losers allowing me to develop my critical thinking skills when it came to using sources and being able to analyse their pros and cons.

Numeracy and Excel

One of the key things learned during this module was through the statistical exercises in Units 8 to 9 as I was able to learn more about the features excel has to

offer. For my job in financial management of research grants I use excel as my main tool for managing budgets for projects and this module has allowed me to expand my skills in using it. Being able to make use of the extra add-ins provided such as “Toolpak” that adds data analysis, one of our funders requires quarterly spend updates so being able to break the monotony and utilise tools such as excel to their fullest extent rather than scratching the surface.

Presenting

The research proposal presentation was to be completed as a presentation which allowed me to get more practice in presenting information using PowerPoint and an MP3 file. One of the issues that I had to overcome was pacing myself to not read too fast as it has to be a 10 minute presentation, the benefit of being able to do a pre recorded presentation I was able to do retakes and edit the audio to remove any stuttering whilst also being able to have my transcript next to me

Unit Tracking and HTML Skills

I kept track of using my portfolio which was fun to build upon as I was able to track progress on a weekly basis by completing a task then making a page for it on my GitHub website using HTML.

Overall completing this part of the module allowed to be creative but I wish I went a little bit deeper by adding more images and a personal page, but I felt it was sufficient enough for tracking progress. Below is the list of pages on the Research Methods module page for each activity below:

- Unit 1 - Introduction to Research Methods. The Scientific Investigation and Ethics in Computing

- Unit 2 - Research Questions, the Literature Review and the Research Proposal
- Unit 3 - Methodology and Research Methods
- Unit 4 - Case Studies, Focus Groups and Observations
- Unit 5 - Interviews, Survey Methods, and Questionnaire Design
- Unit 6 - Quantitative Methods - Descriptive and Inferential Statistics
- Unit 7 - Inferential Statistics and Hypothesis Testing
- Unit 8 - Data Analysis and Visualisation
- Unit 9 - Validity and Generalisability in Research
- Unit 10 - Research Writing
- Unit 11 - Going Forward: Professional Development and Your e-Portfolio
- Unit 12 - Project Management and Managing Risk

Resubmission – Time Management & Research Skills

Resubmitting course work has been a difficult process as it is a time where I had to take on feedback and apply it to complete the same assignment again. The skills that I felt had been improved by this process is my time management and research skills, my time management skills had improved as I had to plan in 6 weeks how to redo a 2000-word literature review and improve my e-Portfolio to a passing standard. I decided to first tackle the literature review as it required extensive research time on a new topic which I chose “Financial Impact of Ransomware and Malware on the Healthcare Sector”, to manage my time best around a full-time job I requested annual leave across the 6 weeks to give me full days of being able to research as my main issue was that I did not go in depth enough with my research in my first submission. Managing my time better this time around allowed for me not to rush

aspects of research and get to know the literature more in depth as I didn't have to do masters work after I finished a working day and also taking care of family.

Creating a plan and liaising with my manager was the most important aspect of being able to complete substantial research in a timely manner.