**Reflection on Research Methods and Professional Practice module**

<https://adesola15.github.io/eportfolio/rmpp.html>

Reflecting on the Research Methods and Professional Practice module, I would say overall it has been an enjoyable experience. Even though I would say previously to this module I had a good understanding of research methods in academia, I have definitely learnt a lot of new things. My understanding was limited to mainly being able to search for academic papers and use them in my essays with Harvard referencing.

During this module I have developed many important skills and competencies. I have learned to study and reflect on research principles and methods based on the scientific method. This has helped me understand and examine various research strategies and designs relevant to my projects.

One area of the module I that particularly frustrated me with was the statistical worksheets. It wasn’t necessarily the work itself, but more the fact that the content was fragmented across the VLE, they weren’t all in one place, so it became a bother trying to find work. Also, some of the work was missing so that wasn’t helpful either. However, an upside to this was that it forced me to reach out to other student’s studying the module and we were able to come up with solutions together. This unexpected collaboration ended up being one of my favourite parts of the module and going forward I will definitely try to keep in contact with my peers outside of the collaborative discussions.

Of my statistical analysis skills, I would say it was a new experience for me as I did not study maths past GCSEs. However, I was able to practice and increase my skills through the worksheets and the seminars and the help of my peers. Through using min, max, means, quartiles, standard deviations and ranges, with histograms I have been able to explore new ways to increase my statistical analysis skills.

I have also improved my research skills, especially in collecting and analysing data. This has allowed me to design and evaluate independent research more effectively. The module encouraged me to take a reflective and independent approach to learning, which has deepened my understanding of the subject I chose to explore, which was the financial impact of ransomware on the healthcare sector.

Writing my literature review on the financial impact of ransomware and malware in the healthcare sector was enlightening. The assignment allowed me to explore these cyber threats, their financial consequences, and necessary cybersecurity measures. I wanted to understand the economic challenges of cyber-attacks in healthcare, analyse case studies, and explore mitigation strategies. Initially, the complexity was overwhelming, but general research and a Unit 4 plan helped. Managing the large number of references was challenging but it pushed me to improve my time management and organisational skills.

I gained a deeper understanding of cybersecurity in healthcare, and I realised the importance of proactive measures and regulatory compliance. I learnt about the indirect costs of cyber-attacks, such as downtime and reputational damage, broadening my analytical skills. The feedback I received showed I needed better critical analysis, which I addressed in my Research Project Proposal.

Completing my research proposal presentation, "A Cost-Benefit Analysis of Ransom Payment vs. Recovery Investments in Healthcare Ransomware Attacks," was a little stressful but rewarding, deepening my understanding of the topic and research processes. With a background from my literature review, I identified a significant gap in comparing ransom payments to recovery investments in healthcare which pushed me to explore the area. Despite initial stress, I continued research which was fundamental to me completing the assignment. The module's learning outcomes and feedback from my literature review guided my approach, resulting in a distinction for the presentation.

I developed valuable skills, such as conducting thorough research proposals, critically evaluating methodologies, identifying gaps, and proposing future research directions. I am sure these skills will be applicable to real-world scenarios, and I will use them during my career. Overall, the experience honed my research skills and deepened my understanding of cybersecurity's financial impact on healthcare.

Reflecting on my professional skills matrix and SWOT analysis, they helped me reveal that my key strengths are effective communication, technical proficiency, and ethical awareness, all of which have positively impacted my career. Opportunities like industry engagement and sustainability experience will support my professional development. However, my weaknesses in Java, and critical analysis are areas I can improve. By staying updated with ongoing learning and adapting to these threats, I can continue to advance and succeed in my career.

Overall, the skills and knowledge I gained from this module have greatly improved my ability to conduct thorough and ethical research in the computing field. It allowed me to practice resilience and patience as I completed my work during the module that I did not have previous experience in.

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