In today's rapidly evolving world, science and technology are flourishing and advancing unprecedentedly. However, it is important to recognise that these accomplishments result from extensive research and the unwavering dedication of the often unsung heroes - the researchers. This essay will discuss the impact of acquiring research methodology and professional practice knowledge on the Author's academic journey.

1) Research Methods & Professional Practice

Emotional Analysis. During the first seven weeks, the module aimed to introduce the participants to research methods, providing a list of topics to choose from and producing a literature review and a research proposal paper. Initially, the Author of this text felt slightly overwhelmed by the amount of theoretical information; as a computing professional with a purely practical background, he had to absorb and produce a literature review and a research proposal on top of each unit's formative activity.

Literature Review Task. The assignment looked rather daunting at first sight. Choosing the right topic and scouting the internet felt overwhelming, where a vast amount of information was contained, but not all of it was credible. A significant amount of time was spent gathering, reviewing, analysing, and identifying gaps in the literature. Valuable knowledge was acquired through an extensive process of effectively structuring a Literature review utilising the SWOT methodology to identify strengths, weaknesses, opportunities, and threats. Additionally, this process aids in

pinpointing unexplored areas within any scientific field, making it an essential component of any dissertation project (Oliver, 2012).

Significance and Impact. Research methods are crucial for academic inquiry and professional growth. They form the basis for knowledge creation and examination in academia and beyond. They adopt quantitative, qualitative, or mixed methods, which is beneficial in research that necessitates statistical information and profound comprehension (Creswell& Creswell, 2017). As a result, the Author found these meticulous and methodical approaches to obtaining impartial and substantiated responses indispensable. They provided valuable insights on transforming a basic inquiry into a highly precise hypothesis with quantifiable outcomes, ultimately informing the composition of the research proposal task. Professional practices, such as the Code of Conduct and Ethics, outline expected standards and behaviours for professionals, resulting in individuals with integrity and accountability.

The Future and Blindspots. From the Author's perspective, acquiring the ability to perform research through ethical, professional, and validated means has facilitated structuring a thesis project from the groundwork to the pinnacle. This approach can be seamlessly applied to other professional project developments. What could be improved or done differently is the Author's more active engagement in formative activities, not only for the enrichment of the e-portfolio content but for the overall improvement and correction of some shortcomings during the research.

2) Statistical Analysis

In the latter half of the eighth week of the module, we delved into a more practical and specialised approach to conducting research, namely, honing our skills in statistics. Statistics are crucial in cybersecurity and academic research, providing a foundation for understanding cyber threats and validating hypotheses.

Emotional Analysis. My initial encounter with inferential statistics was initially characterised by nervousness and intrigue. The intricate mathematical complexity appeared daunting, yet these skills' potential for deciphering valuable patterns from data was undeniably fascinating.

Statistical Exercises. There were many exercises, but they were thoroughly explained with examples. They could be executed with various tools such as Python, Excel, or R. Unfortunately, due to improper time management, the Author could not submit the Excel sheets with the exercises in the portal. However, they were completed after the due date. This event made me realise the value and impact of statistics in interdisciplinary science and, in parallel, consider the ways that could be used in a professional project. Suppose something, as per the Author's opinion, should change; it is to have a dedicated module exclusively for Statistics in the Cybersecurity field because 2 weeks is not an appropriate time slot to master it.

Significance and Impact. Statistical skills can greatly affect the decision-making in the Cybersecurity field. Bayesian analysis and Monte Carlo simulations provide

nuanced insights into cybersecurity risks, allowing organisations to prepare more comprehensive risk mitigation strategies and invest in Cybersecurity (Hubbard & Seiersen, 2016). Additionally, Statistics can evaluate the efficacy of cybersecurity tools and techniques through quantitative, qualitative and mixed methods. Undoubtedly, incorporating mathematical models and statistical frameworks into the mix can help machine learning and AI better anticipate and deter security breaches. Doing so can improve our ability to predict and prevent these incidents. In Academic research, statistical skills are essential to validate a hypothesis, contribute to unbiased and ethical results and identify the degree to which the conclusions of a study can be applied to different environments (Field, 2013).

The Future and Blindspots. As previously stated, I should participate more actively in group activities in the future. I need to improve my statistical skills as they are crucial in my life's personal and professional aspects, especially in the cybersecurity field.

3) Professional/Personal Development Based on Skills Matrix.

Throughout the course and completing eight multi-faceted Modules (Launching into Cybersecurity, Network Security, Security Risk Management, Secure Software Development, The Human Factor, Principles of Forensics and Cyberlaw, Secure Software Architecture and Research Methods and Professional Practice), I have gained a 360 degrees point of view of both technical and human skills, more info in the Appendix.

Technical Skills: Python, Security Risk Management using Monte Carlo Framework, Secure Software Design using programming Languages such as Java Scripting and Python, Kali Linux and Network Penetration Testing skills.

Human Skills: Working on team Projects, Working with different cultures, awareness of the human factor, deep understanding of the cyber law and judicial system in other countries, and the ability to conduct thorough research.

From the Author's point of view, scientific knowledge and research should benefit the public and enhance communities and societies. One topic that particularly piqued my interest is Cyber Law and Forensics, which combines two distinct fields to prevent and anticipate crimes before they occur: the technical side, which involves cybersecurity laws and techniques, and the legal aspect, which is still ripe for exploration.

To achieve professional excellence and reliable research, following the research methods and professional practices analysed during the module is crucial. They provide a solid foundation for ethical and trustworthy study and ensure that pursuing knowledge remains honourable. The above statement constitutes the bedrock of my forthcoming research project, which I intend to present as my final dissertation during the next 5 months.

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Appendix

Skills Matrix

Module	Professional Skills	Legal Skills	Ethical Skills	Social Skills	Technical Skills
Launching into Cybersecurity	Understanding of the cybersecurity landscape, foundational concepts and challenges				Basic technical knowledge in cybersecurity, Introduction to programming languages such as Python
Network Security	Skills in securing network infrastructures, knowledge of defence strategies				Advanced skills in securing networks, use of Kali Linux and penetration testing
Security Risk Management	Ability to assess and manage cybersecurity risks, risk assessment methodologies				Skills in identifying and mitigating cybersecurity risks, using Monte Carlo simulations for risk management
Secure Software Development	Skills in developing secure software, understanding of secure coding practices				Skills in coding secure software, understanding of software vulnerabilities, Python projects
The Human Factor	Awareness of human elements in cybersecurity, psychological analysis of		Ethical considerations in privacy and ethical hacking	Understanding social impacts of cybersecurity, human behavior	

Module	Professional Skills	Legal Skills	Ethical Skills	Social Skills	Technical Skills
	cybercriminals and victims				
Forensics and Cyberlaw	Knowledge of legal frameworks in cybersecurity, skills in digital forensics	Understanding of cyber laws, legal procedures, and compliance; evidence collection and presentation		Knowledge of social implications of cyber laws and digital rights	Technical skills in digital forensics, understanding of the legal aspects of technology
Secure Software Architecture	Ability to design secure software systems, understanding of architectural patterns				Technical ability in designing secure software architectures
Research Methods and Professional Practice	Skills in conducting cybersecurity research, understanding of professional standards		Understanding of ethical research practices in cybersecurity		Technical skills in conducting research in cybersecurity, qualitative and quantitative research methods
Disaster Recovery and Business Continuity	Knowledge in developing and implementing disaster recovery plans				Technical and strategic planning for disaster recovery and business continuity