**Reflection**

The "Rolfe, Freshwater, & Jasper 'What' Model" is used to document the reflection. The reflection address the three key elements - impact on your personal/professional experience, statistical analysis skills and research methods process based on your learning in this module.

| **Research Methods and Professional Practice** | | |
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| **What?** | **So What?** | **What Next?** |
| **The module - Research Methods and Professional Practice**  The Research Methods and Professional Practice module was constructed using several intersecting learning – periodic seminars, collaborative learning discussions, activities related to formative and e-Portfolio, and graded deliverables. This module includes 12 units:  Unit 1: Scientific Investigation and Ethics  Unit 2: Research Questions, the Literature Review and the Research Proposal  Unit 3: Research Methods  Unit 4: Case Studies, Focus Groups and Observations  Unit 5: Interviews and Survey Methods  Unit 6: Questionnaire Design  Unit 7: Validity and Generalisability in Research  Unit 8: Inferential Statistics  Unit 9: Analysing Qualitative Data  Unit 10: Research Writing  Unit 11: Professional Development – Your e-Portfolio  Unit 12: Project Management and Managing Risk | **Impact on my personal/professional experience:**  The collaborative learning discussions, activities related to formative and e-Portfolio and seminars helped to enhance my learning.  Even though this is an online program, the university and the students utilised the technology effectively to establish a collaborative learning environment. As a result, we learned diverse perspectives and global viewpoints from each other. Opportunities like collaborative learning discussions and seminars helped accomplish this knowledge sharing experience.  Furthermore, as students participated from several continents from different time zones, tools and technology were utilised successfully to share, discuss, learn and grow—for example, WhatsApp groups, Discord channels for collaboration and Google Drive for document sharing.  Students who complete an assignment independently pass through a more significant learning experience than they would in a group assignment where work will be distributed (Shvong, 2019). The module was primarily based on independent contribution, at least the critical deliverable, which enabled me to have a relatively more complete learning experience.  The modern-day view of effective feedback focuses on learner self-assessment, behaviour changes, and professional career growth ( Boud 2015). In addition, feedback approaches are moving away from technique-focused strategies to receivers' objective-centric and impact-focused systems (Telio et al., 2015). During this module, the feedback provided by various social media group members, classmates and the tutor enhanced my development and advanced my knowledge. I was motivated and inspired by the feedback provided and wanted to do more research and understand the professional practices even deeper. Specifically, the collaborative discussion 1, where several students and the tutor discussed numerous cases, provided me with a broader perspective on the ethical concerns of professionals, organisations and industry practices.  **Note:** *See SWOT Analysis and Action Plan below in Section 6.*  **Statistical Analysis Skills:**  Statistical analysis is a crucial research tool to study trends, patterns, and relationships using quantitative data. It is used by researchers, governments and other business organisations (du Prel et al., 2010). In this module, units 8 and 9 were primarily focused on statistical analysis. In unit 8, I learned to calculate the sample size, sample mean and sample standard deviation of two sets of data which enabled me to compare them. For example, diet A and diet B were compared and assessed the relative effectiveness of the two weight-reducing diets. Similarly, I also did an exercise to identify the preferences for the various breakfast cereal brands that differ between the two demographic areas. In addition, I also learned to perform hypothesis tests using Excel by measuring the same characteristic (the number of items sold) under two different "conditions" (the two different container designs) and related assessments.  Unit 9 exercises helped to learn various bar charts - a bar chart for prefered cereal brands (A, B, other) within an area (1), comparing the preferences between two areas, a histogram for diet weight loss, which can be used to present research results.  **Research methods process based on my learning in this module:**  The construction of the research proposal helped me learn and comprehend all the elements of the entire module. The topic selected was the gender pay gap in the cybersecurity field in Canada. The subject is unique, sensitive and most often overlooked. Even for me, that was the challenge initially. I also questioned the public perception of this project – how the industry would receive this project, etc. However, as I started to articulate the significance of the research problem, I quickly realised the value and criticality of the project.  The research questions are vital to the research process and affect most steps taken to conduct the research (Learning and University Libraries, 2015). For example, developing the research questions helped me validate my research topic as more specific and relevant. That process was a two-way street, enabling me to go between the research topic and the research questions – it was an authentic learning experience.  Performing the literature review related to the project enabled me to read a broad range of materials and identify the mutual elements, trends, themes, and differences to present the gap and the need for the research.  Identifying appropriate methodology helped look at the possible data – primary and secondary, collection methods – survey, interview, etc., assessment method – qualitative and quantitative, etc., and presentation methods – bar chart, pie charts, etc.  Ethical considerations related to the data collection and the professional practices enabled us to take a closer look at the data types and sensitivity of the potential data. Also, it helped me understand various regulatory and ethical requirements related to data collection, process and protection.  Description of artefacts and timelines helped me learn the project management aspects of the research – time, schedule, communication, resources, quality, deliverables, presentation/communication and milestones. | **Next steps – where I can apply the learning and future opportunities:**  The methodologies, approaches, tools and techniques learned for this module can be applied to the upcoming capstone project. Specifically, learning from the Literature Review project submitted by the end of Unit 7 can be used in any research assignments – understanding the research topic well, reviewing the previous literature and studies completed, and identify the gap and opportunities for future research.  Similarly, the learning from the other engagements and learnings, specifically the research proposal, can be allied to future research. In addition, I will enhance my knowledge by improving my readings and additional search.  I would effectively apply transferable skills such as project management, the ability to take risks, and the ability to prioritise. I would proactively look for the opportunity to improve those skills. In addition to the skills highlighted, the research personnel can benefit from the skills listed below:   * Analytical thinking and problem solving * Focus, dedication and interpersonal * Critical reflection and evaluation * Ability to multitask and prioritise * Teamwork/global citizen and leadership * Motivation, entrepreneurial   Furthermore, I would vigorously utilise every opportunity to practice these skills and enhance them where necessary. |