**Reflection on Research Methods and Professional Practice (April 2024)**

**Reflection Document**

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**Research Methods and Professional Practice April 2024**

**University of Essex**

**Github repository:** [**Fatma-110/fatimaalsoqatari.github.io: e-portfolio**](https://github.com/Fatma-110/fatimaalsoqatari.github.io)

**Github eportfolio live:** **https://fatma-110.github.io/fatimaalsoqatari.github.io/**

# **Introduction**

# This document reflects on my learning experience throughout the Research Methods and Professional Practice module taken in April 2024. The module provided insight into research methods, ethical issues, statistical analysis, and professional development. By assessing specific experiences, I will examine areas of growth, challenges, and future goals to apply these skills effectively in the computing field.

# **WHAT: Project Outcomes and Learning**

Throughout the module, I engaged in various activities that enhanced my skills in research and professional practice:

* **Research Ethics**: A core part of the course was learning about research ethics, including privacy, informed consent, and bias prevention. This foundation in ethical principles is crucial in computing, where handling sensitive data responsibly is essential. By understanding these ethics, I’ve become more aware of the social impact of my research, which is critical for building credibility and public trust (Babbie, 2020).
* **Literature Review and Research Proposal**: The module emphasized evaluating academic sources critically, which helped me identify gaps in existing research and develop focused research questions. This skill has strengthened my critical thinking abilities, which will be invaluable in both academic and professional computing projects (Creswell, 2018).
* **Statistical Analysis**: Units on descriptive and inferential statistics provided me with practical experience analyzing data, allowing me to apply these techniques in research. By practicing these statistical concepts, I gained confidence in interpreting data, a skill that is increasingly important in the data-driven computing field (Field, 2017).
* **Professional Skills Development**: Creating a professional skills matrix and SWOT analysis enabled me to reflect on strengths, weaknesses, and areas for improvement. This exercise highlighted my strengths, such as problem-solving, and areas like time management that require further development. Setting these goals provides a clear direction for my professional growth (Kolb, 1984).

# **SO WHAT: Analyzing the Learning Experience**

The module not only provided theoretical knowledge but also encouraged applying skills essential in real-world research and professional settings. Reflecting on the experiences helped me address challenges and recognize improvements in my approach to research and professional practices.

* **Critical Evaluation of Literature**: Initially, I underestimated the complexity of synthesizing diverse perspectives within a literature review. This skill of critically assessing sources has enhanced my ability to formulate meaningful research questions and insights, contributing significantly to my analytical capabilities (Creswell, 2018).
* **Research Methodology Challenges**: Developing a research methodology posed a challenge, particularly in ensuring the reliability and applicability of the results. Unit 9 focused on these aspects, helping me understand how to create a methodology with broader relevance. This understanding is crucial as I prepare to design studies that can yield reliable findings within computing (Saunders M. L., 2019).
* **Statistics Exercises**: Initially, I struggled with statistical analysis, especially inferential statistics. However, the practical exercises helped me grasp complex concepts through real data applications. The confidence gained from mastering these techniques has bolstered my ability to analyze data meaningfully and apply these skills to professional tasks (Saunders M. L., 2019).
* **Self-Assessment and Professional Growth**: Conducting a skills assessment and SWOT analysis provided structure for evaluating my capabilities. Recognizing strengths like analytical thinking and addressing areas for improvement, such as time management, has led me to set actionable goals. This self-reflection process is invaluable for advancing my professional growth (Rolfe, 2001).

# **NOW WHAT: Applying the Learning to Future Work**

The knowledge and skills gained from this module will serve as a foundation for future academic and professional work in computing.

* **Research and Analysis**: I now feel equipped to apply critical appraisal techniques to my computing projects and craft research proposals with robust statistical support. This skill will enhance the quality of my work, allowing me to contribute effectively to research and development initiatives within my field (Creswell, 2018).
* **Ethics in Professional Practice**: Understanding the ethical implications of research has highlighted the importance of responsible data management, especially in computing. Following ethical guidelines will not only build my professional reputation but also foster trust among stakeholders, which is essential for long-term success (Babbie, 2020).
* **Continuous Professional Development**: Based on my SWOT analysis and skills matrix, I plan to pursue additional training in time management to address my primary area for improvement. Additionally, I will seek out data analysis tasks in my current role to strengthen my statistical skills further. By focusing on these areas, I am confident that I can build a balanced skill set suitable for a rapidly evolving field.
* **Long-Term Career Goals**: My long-term goal is to excel in the field of computing, particularly in cybersecurity. The research and ethical frameworks introduced in this module provide a strong foundation for this ambition. By staying informed on industry trends and continually refining my skills, I aim to make a meaningful contribution to my field.

# **Conclusion**

The Research Methods and Professional Practice module has been instrumental in shaping my understanding of research in computing. By covering critical topics such as ethical considerations, statistical analysis, and self-assessment, the module has fostered my professional and personal growth. Reflecting on these experiences has allowed me to set clear goals and create a roadmap for continuous improvement. I am optimistic about applying the skills and knowledge gained from this module to make valuable contributions in the computing field and advance my career as a researcher and professional.

# **References**

Babbie, E. (2020). *The practice of social research (15th ed.).* Cengage Learning.

Creswell, J. W. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches (5th ed.).* SAGE Publications.

Field, A. (2017). *Discovering statistics using IBM SPSS statistics (5th ed.).* SAGE Publications.

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development.* Prentice Hall.

Rolfe, G. F. (2001). *Critical reflection for nursing and the helping professions: A user's guide. .* Palgrave Macmillan.

Saunders, M. L. (2019). *Research methods for business students (8th ed.).* Pearson Education.

Saunders, M. L. (2019). *Research methods for business students (8th ed.).* Pearson Education.