

RESEARCH METHODS AND PROFESSIONAL PRACTICE

END OF MODULE ASSIGNMENT

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REFLECTION

During this module, I have come to appreciate much more the need for research and professional practices while gaining valuable skills in statistical analysis, which have enhanced my understanding of data collection and interpretation. I have learned how to use various statistical tools to analyze data, such as descriptive statistics, correlation analysis, and regression analysis. These skills are essential for making informed decisions based on data, which is critical for professional practice in various fields.

One of the most important skills that I have developed during this module is my ability to critically evaluate data. I have learned how to interpret results and draw meaningful conclusions, which is essential in professional practice. I have also gained in-depth knowledge of using excel as a statistical tool, which is widely used in various fields. These skills have given me the confidence to analyze data and draw informed conclusions, which is essential for making evidence-based decisions.

The research methods process has also been a key learning outcome of this module. I have gained an understanding of the various stages of the research process, including identifying a research question, selecting a research design, collecting data, analyzing data, and reporting findings. I have also learned about the different types of research designs, such as experimental, quasi-experimental, and non-experimental designs, and their strengths and limitations. This knowledge has provided me with a framework for conducting research in a professional setting.

In addition, I have gained an understanding of the ethical considerations involved in research, such as obtaining informed consent, ensuring confidentiality, and minimizing harm to participants. This knowledge is essential in professional practice, as it ensures that research is conducted in a responsible and ethical manner.

The impact of this module on my personal and professional experience has been significant. Through completing the professional skills matrix and SWOT analysis, I have identified areas for improvement in my research skills and have developed an action plan to address these areas. For example, I identified that I need to improve my skills in data visualization and presentation, and my action plan includes taking an online course on data visualization.

In addition, through participating in group projects also as in other modules, I have gained experience in giving and receiving feedbacks. I have learned the importance of communication, which are essential skills for not just my professional life but also in social settings. Furthermore, through the feedback received from other members, I

have gained insight into what other things that could have been considered in a topic and therefore making me consider thinking wider in any given situation, and with that, I can improve my performance in future projects.

Working on the assignments during this module has been both challenging and rewarding. I have experienced moments of frustration and uncertainty. Part of it has been putting in my very best and receiving feedback that makes me feel I never tried. I do not entirely agree with the feedback of my literature review being wide. I believe the topic I picked and that was provided is already wide enough. As a researcher, it would make more sense to review literature extensively before a proper decision can be made on what the knowledge gap actually needs. In the absence of a wide consideration, we may just end up with repeated or limited research. Moreover, the word count is not enough to properly express one's findings. But I have taken these challenges as opportunities for growth and learning. The feeling of accomplishment and satisfaction has been my ability to get to the end of this module.

Through this module, I have learned the importance of continuous learning and self-reflection. I have developed a deeper understanding of research methods and their application in various fields, which will be valuable in my future career. I have also gained skills in statistical analysis, teamwork, and communication, which are transferable to other aspects of professional practice.

Moreover, the skills I have developed in this module can be applied to a range of real-world situations. For instance, Being and working as a software Engineer, I consider research as a critical tool that can help software engineers improve their skills, develop new products, and enhance their productivity. Adding the acquired knowledge from this module to my career, I believe it could help me to identify new methods and best practices, stay up to date with emerging technologies, and solve complex problems efficiently.

One of the primary ways I believe research can help software engineers generally is by improving their skills. Through research, engineers can learn new techniques, methodologies, and tools that can enhance their knowledge and expertise. For example, research in software engineering has led to the development of new programming languages and frameworks that have improved the quality and efficiency of software development (Lethbridge, 2018). By keeping up to date with the latest research findings, software engineers can continuously improve their skills and knowledge, leading to better job performance and career advancement opportunities.

New products and services can be developed by conducting market research and user studies, engineers can identify user needs, preferences, and pain points, which can inform the development of new software products and services. For example, research in user experience (UX) design has led to the development of new design patterns and guidelines that have improved the usability and user satisfaction of software applications (Norman, 2013). By leveraging research findings, software engineers can develop software products that meet user needs, leading to increased user satisfaction and profitability. Also, research in agile software development has

led to the development of new practices and frameworks that have improved the productivity and quality of software development (Beck et al., 2001).

Realizing all these great additions this module has presented me, I understand now that complexity is only the absence of understanding and understanding can be acquired through a good, focused research. I am more confident in facing new challenges and solving problems I may encounter in my day-to-day work activities.

In conclusion, this module has been a valuable learning experience for me. I have gained knowledge and skills in statistical analysis, research design, and teamwork, which are essential for professional practice. Through self-reflection, I have identified areas for improvement and have developed an action plan to address these areas.

References

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