The module on Research Methods and Professional Practise facilitated the refinement of my research abilities through the utilisation of diverse methodologies, practises, ethical considerations, and other related factors.

During the introductory module, we were instructed on the principles of deductive and inductive reasoning methodologies and their respective modes of operation. The fundamental benefit of deductive reasoning lies in the fact that, given the veracity of the premises and the validity of the argument's structure, the conclusion is inevitably true (Copi et al., 2016) whereas inductive reasoning, also known as bottom-up logic, involves the derivation of general principles from specific observations or instances. (Copi et al., 2016). The employment of deductive reasoning provides a high degree of certainty but is contingent upon the veracity of the premises. Conversely, inductive reasoning permits the formation of generalisations based on observations but does not ensure truth. (Hou, 2021)

Additionally, we delved into the theoretical underpinnings of various research methodologies, including exploratory, conclusive, and qualitative approaches. The author has gained knowledge regarding exploratory research, which is a research methodology utilised to elucidate vague issues or identify concepts that may serve as potential research subjects (Stebbins, 2001). This approach is characterised by its malleability and ability to accommodate modifications. Conclusive research endeavours to furnish ultimate and conclusive responses to research inquiries (Zikmund et al., 2013). While it adheres to the approach adopted by exploratory research, it operates by employing extensive representative samples and quantitative measures to guarantee the precision of its findings. In contrast, qualitative research entails the examination of phenomena within their natural settings, with an attempt to comprehend and interpret them based on the meanings that individuals attribute to them (Denzin & Lincoln, 2011).

As I progressed through the module, I was acquainted with the notions of qualitative and quantitative observations. Upon conducting a thorough analysis of relevant literature, it has become apparent that while quantitative observation yields precise and dependable data that can be subjected to statistical analysis and extrapolated to broader populations (Mertler & Vannatta, 2017), it is not without its limitations. These include the potential for insufficient depth and context in the data, as well as the risk of oversimplifying intricate phenomena (Bryman, 2012). Qualitative observation is known for its ability to provide in-depth and intricate depictions of phenomena, encompassing subtle nuances that may be disregarded by quantitative approaches (Creswell & Poth, 2017). Notwithstanding, this approach has been susceptible to critique due to its susceptibility to subjectivity and bias, limited generalizability of the results, and the laborious process of gathering and analysing data (Bryman, 2012).

A substantial segment of the instructional unit instructed me on the principles and techniques of statistical inference. During my studies, I acquired knowledge on various statistical concepts such as datasets, observations, levels of measurement, dispersions, and hypothesis creation. According to Stevens (1946), the term "level of measurement" typically pertains to the nature of the data that a variable represents. The classification of measurement levels comprised four distinct categories, namely nominal, ordinal, interval, and ratio. Stevens (1946) posited that nominal variables pertain to categories that lack order, such as gender. On the other hand, ordinal variables involve categories with a specific order, such as rankings. Interval variables, meanwhile, exhibit meaningful differences in their numerical values, as exemplified by temperature. Lastly, ratio variables are characterised by numerical values that hold significance with respect to a zero point, as seen in weight measurements.

The subject of hypothesis testing proved to be intriguing as it involves a statistical methodology for ascertaining the validity of a claim or statement pertaining to a population parameter (Field, 2013). The process entailed formulating a null hypothesis that posited the absence of an effect and an alternative hypothesis that proposed the presence of an effect. Additionally, it necessitated the selection of a significance level, the collection of data, the computation of the test statistic, and the comparison of the test statistic with a critical value to determine the rejection or acceptance of the null hypothesis (Field, 2013). The aforementioned exercises have furnished me with substantial practical exposure to the methodology of handling diverse datasets with varying levels of measurement.

To sum up, the module on Research Methods and Professional Practise provided a valuable experience that facilitated the acquisition of a comprehensive comprehension of diverse research methods, practises, and ethical considerations. Through an examination of various forms of reasoning and research methodologies, I acquired a comprehensive understanding of the intricacies and ramifications inherent in both qualitative and quantitative research paradigms.

Moreover, through an in-depth exploration of the various aspects of observations, levels of measurement, dispersion, and hypothesis testing, I acquired significant knowledge regarding the methodologies employed in data collection, measurement, and analysis. The acquisition of knowledge pertaining to the intricacies involved in formulating hypotheses and the significance of precise interpretation of outcomes through statistical analyses was obtained from Field's (2013) work.

Furthermore, the module has instigated a critical analysis of these concepts, highlighting the necessity for methodological adaptability contingent upon the research inquiry and setting (Johnson & Onwuegbuzie, 2004). The aforementioned observation aligns with the argument put forth by Creswell and Clark (2017) that the efficacy of a research methodology is not intrinsic, but rather contingent on its appropriateness to the specific research issue being investigated.

Upon reflecting on this learning journey, it has become apparent that the mastery of research methods extends beyond a mere comprehension of various techniques. Instead, it involves the ability to discern the appropriate application of these techniques in diverse contexts. The aforementioned understanding, in conjunction with the applicable proficiencies I have acquired, will assuredly be of great worth in my forthcoming scholarly or vocational undertakings. All of my activities, formative as well as summative are sufficiently presented and put forth at the e-portfolio page, available at: <https://acc3ssp0int-official.github.io/> and is also available in the header information.

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