Reflective Essay

Research is one of the greatest opportunities I have had in my life as a student at TRU. It not only allowed me to gain knowledge in specific fields, but I was also able to grow as an individual which I think is even more beneficial.

The number of different fields I was able to actively research in allowed me to gain and expand my knowledge. Starting off in the BEAC Lab, I had very little to no knowledge about ornithology, but working with Dr. Reudink and learning from him and the research I conducted, I was provided with a deeper understanding of bird biology, behavior, and ecology, especially in regard to Mountain Bluebirds in the Kamloops region. I was also able to learn valuable research skills and different conservation efforts to help protect bird populations in the Kamloops region. Working with Dr. Rakobowchuk in the Human Physiology Laboratory, I was able to gain an immense amount of knowledge pertaining to sodium levels in the body and how they are dealt with. Through my research, I was also able to actively be part of new discoveries in regard to how the body handles sodium levels and how this can lead to decreased endothelial function which can then lead to high arterial blood pressure and cardiovascular disease. As cardiovascular disease is a major concern for many individuals globally, working on understanding the body’s response to differing sodium levels can help researchers, like me, learn about preventative strategies to help limit the risk of cardiovascular disease. My honours project also allowed me to learn many different laboratory techniques, the most prevalent one being the use of a doppler ultrasound and how it can help researchers observe endothelial function in individuals through different tests that can be performed using the ultrasound. Working with Dr. Don on biological condensates exposed me to a field that is evolving rapidly day-by-day. As this is a very new area of research, having the opportunity to learn about these condensates and how they could possibly play a role in many different cellular processes right as the research is coming out was both exciting and difficult at times as this field was changing daily. Being able to focus in on the specific topic of biological condensates and ALS allowed me to learn a little bit more about how the disease could proliferate and how these condensates could even potentially lead researchers to possible cures for this disease.

My time as a research student has made me realize the importance of developing new skills and communicating with others. I learned from those around me, through experiences such as research, and was able to take their advice to better myself as a researcher. Conducting scientific research required me to analyze and evaluate data and evidence carefully. The research process enhanced my critical thinking skills and helped me to learn how to make sound judgments based on evidence. By having research opportunities in different areas of science, I was able to learn how to think differently for each area and this also helped to grow my other skills, such as problem solving. I learned that, in science, research is often centered around solving problems or answering specific questions. By engaging in research, I was able to learn from my supervisors and peers, how to break down complex problems into smaller, more manageable parts and develop innovative solutions. I also discovered that scientific research requires meticulous attention to detail, as even the slightest errors can have significant consequences. It also requires creativity, because, as a researcher, you must be able to think outside of the box to develop new theories or experimental methods. The different research projects I was involved with helped me to develop a high level of precision and accuracy in my work. I believe that the biggest skill I gained from my time as a research student was the growth of my communication and collaboration skills with others. As research often involves working in teams or collaborating with other researchers, I was able to learn how to communicate effectively with others, delegate tasks, and work towards common goals. I was able to develop my communication skills further through working with individuals and using communication effectively to ensure that everything is accounted for in regard to the research and to make sure the people I am working with feel comfortable to freely voice their opinions on certain issues that might arise in the research process. Communication can be our greatest assets as we all have different thought processes and this could lead to a new solution or method to conduct the research, which could be very beneficial to all involved. At the end of the day, everyone is on a research team, and learning how to work on a team and learn to respect one another’s opinions and thoughts is a useful skill to have in research. Perseverance is another very valuable skill to have when working as a researcher. Scientific research can be challenging and require a lot of time and effort. Engaging in research has taught me the value of persistence and the ability to stay focused on a problem until a solution is found. Research will never go as planned, so being able to stay focused and committed on the end goal has helped me through times when I felt as though my entire research project has fallen apart.

 Participating in research has also allowed me to have the opportunity to see how the different research projects I have been part of can contribute to society. Research can make a significant contribution to society by advancing knowledge, improving technology, and solving real-world problems. Engaging in the number of different research projects I have had the pleasure to have been a part of, has allowed me to see how through research, an individual or a team of researchers can make a positive impact on the world.

Conducting research can have a significant impact on my future in many ways. Research has helped me to develop important professional skills such as critical thinking, problem-solving, communication, and teamwork. These skills can help me excel in my future studies and profession. The research process can be a challenging, but also be very rewarding experience that has helped me to grow personally. It has taught me persistence, patience, and resilience in the face of adversity. Overall, conducting research can has had a positive impact on my future by providing myself with valuable skills and knowledge, personal and professional growth, and opportunities to contribute to society and connect with others in my field.