Sam Kane

Goal 2.1 Reflection

Evaluate and Apply Experimental Design and Draw Valid Conclusions

Throughout my four years as an undergraduate student at Longwood University, there have been different concepts and ideas I’ve needed to learn and implement. One of the most important of these concepts includes understanding the concepts of evaluating and applying experimental design. Not only is this important, but it also provides new avenues to being able to draw valid conclusions from the experimental design.

Bio 324 – In Biology 324, genetics, we had a semester long research project. Our semester long research project consisted of Synthetic Biology and was referred to as “Microbocop”. Before actually beginning with the research project, we had to come up with an experimental design. This experimental design was based around finding a new way to test on-the-spot for gun-shot residue (GSR). Following the research project’s completion, we were able to draw valid conclusions based upon our experiment, and allow for new ideas of future directions in the field of synthetic biology.

Bio 473 – Throughout Biology 473, biomechanics, we had a semester long research project that entailed a mostly novel topic. The topic for this research assignment was testing the C-start of different aged zebra fish and seeing how the C-start technique changes within the varied age groups. Throughout this experiment, my research group had to come up with an experimental design and successfully implement the design. Following the completion of the project, we were able to draw valid conclusions from the project, giving us a better understanding on the way the C-start technique works and how it varies amongst different age groups.