Assignment 4 KPPDEA001 STA2007F

In this experiment, the treatments would be the four different brands of fish food. The control treatment would be the original standard fish food that has been used originally and based on this it will be possible to evaluate the effectiveness of the other treatments.

For the experiment, the response and the observational unit would both be the individual fish that will be consuming the different fish foods. We will be interested in observing how the fish respond to f the different foods in terms of their growth in order to determine the optimal food.

The experimental units in the experiment are the tanks that the fish are in. This experiment would require four identical tanks. They would need to contain the same water and be the same size and contain the exact same materials. This is so that we can eliminate all other factors and attribute the difference in growths solely to the different food.

The four tanks would also need to be set up in the same location in order to eliminate external factors such as sunlight and air quality. The fish need to be fed at the exact same times. The experiment requires ten replicates and therefor 40 fish. These forty fish will be divided among the four tanks and should be blocked according to their size in order to reduce unexplained variance.

The tanks would be labelled according to which food is given in each one. The first tank is the control and receive the same food as before, this may be labelled something like “Control tank” then the rest of the tanks should be labelled according to the food the receive.