**NAME**

**DATE**

**TOPIC:** WHY ARE SCIENTISTS USING STATISTICS

**INTORODUCTION:**

Whether you are in class, in a research lab or just counting the number of buses passing by as you wait for your favourite chauffer, there is one thing that you are interacting with without your knowledge, its statistics. Our minds usually get into a maze whenever we think of statistics as large formulas with very difficult to underrated concepts and inferences that may be false or true. The fact of the matter is that statistics is easier than we have ever thought. If you can count then you are a statistics expert already, what you need is a little motivation to count more, right?

So where did statistics come from? Historians have overtime tried to ink to the very last of the details they could be having on the subject and two super minds come to play:

* That John Gaunt and William Pettey came up with the discipline in early 1662
* And then Muhanad Aweis made the subject more palatable by adding the principles of probability, which is basically a study of chance, like the chances of you reading this document with smile on your face are 40%, how did I know? Well, may be Aweis knows better.

However, in a world of rapid technological advancements and when nearly almost everything is automated, should one really learn Statistics? Fact of the matter is that statistics is still widely used:

* In financial institutions
* Research scientists in their day to day calculations
* By data engineers as they try to find meanings from the tonnes of information and data that we post online

Some of the brilliant brains that we do not know of so far have went ahead and taken theoretical statistics, developed tools, models/algorithms and code. Whatever they came up with defines what we call as “programing for scientists”. You see, scientists are in their own field trying to predict weather patterns, the next virus that might pop up in our societies and the next formulae that could solve our exploration to space and the colonisation of other planet likes Mars. These languages include LISP, SCALA, and SPSS. Today these tools inform some of the best solutions that we use in our day to day solutions of problems. Credence goes to these brilliant minds.

So why Statistics for Scientists? Whenever we type and press enter on social media platforms, web browsers or just making a purchase at our favourite’s e-commerce websites, we leave a massive amount of data online. Scary right? Funnily enough, these data includes those photos you took the last time you went for a vacation in Madrid, your favourite restaurants and route to work and in some cases your credit card details. There are companies that have invested heavily in data scientists just to ensure that they grab these data and use it for marketing purposes. Have you ever searched the internet for a certain type of shoe to buy and then after that whenever you are online, all you see are adverts related to shoes? Now you know who uses your data.

We are running in a world that is thirsty for solutions. People want to know and predict the future. For a second just imagine you were able to know who will win the next general elections, or how our climate will look like 40 years from now. Interesting still is the perception that we can be able to tell which diseases will be the most harmful in 20 year from now. This power in predictive analytics lies in the hands of data scientists, these guys collect huge amount of data, model it and train it using some of the most sophisticated tools at their disposal and then forecast future changes. Come on, they are not prophets.

There is phrase among data scientists that “data is the silent gold of the future”. The basis of this analogy lies in the perception that the tech industry is constantly advancing and preparing tech tools that will continuously gather, analyse and store data. In order to make huge profits, companies must “steal” your data, though this happens silently without your knowledge, just as they have always done, and scientists are needed to do this. Perhaps it’s high time we advised our younger siblings and children on their future career choices.