

## Reading Assignment

### **Galileo's Experimental Research**

*by Thomas Settle*

Honestly, I am attracted to this essay by the questions asked by the writer. This is because I also have the same questions in my mind, perhaps most of the classmates also have the same thoughts. From I have read, I noticed that Galileo was a very sensitive observer in his life. Moreover, he was an experimenter who was full of curiosity and eager to find out the reasons behind of almost everything he saw in his life. I think this is one of the essential characteristics to be a good experimenter. Because of the driven of the curiosity, it helps someone to move forward to discover something new in his/her life. No matter how small the things are, perhaps they have caught someone attentions. The obvious short phrase I can think of is: curiosity can drive someone to explore more in his/her life.

Sometimes, the living background of a person might affect the ways they think and relate things into their explanation. Moreover, they might have develop certain skills into their lives since young such as Galileo who had a pair excellent ears, a pair of keen and attentive eyes and a pair of hand of near professional musical instrument performer. These characteristics have eventually help him to be a brilliant observer and experimenter.

As an experimenter/researcher, we should try to eliminate what we have knew and focus on what we have observe during the experiment. Often, we might ignore some observations or discoveries that do not seem like fit the theoretical ways which we have knew. If we put ourselves into a box that what we have knew, we will never jump out from the box or observe the internal parts of the box from outside. Eventually, we have discovered nothing new but to verify all the facts which have taught in the class.

To begin an experiment, we should always imagine our brain as a fresh sheet of paper. Our main responsibility is to record what we have seen during the experiment. Then, we can try to link all the observations in a scientific ways. Try to conduct the experiment several times by substituting a variety of variables that might affect the results of the experiment. This will help us to eliminate some variables and all the doubts appear in our mind. Furthermore, it will help to refine the quality of the experiment. The final data obtained from the experiment thereby become a more reliable and trustful evidence which can be use to verify and conclude a statement.

I am strongly agree with the writer: Galileo never simply adopted a theoretical position, deduced an empirical consequence, constructed a carefully articulated experiment to test it, and ended the matter at that point. Galileo often changing his mind after further exposure to a problem whereby he has discovered something new during the experiment. This has reminded me that I also have the same thoughts as Galileo, I always recreate my experiment in different ways when I have new ideas in my mind. Sometimes, it is noting do with the data I wanted but simply I am curious to find out the what the results are. Normally, I will keep All the data/results obtained during the experiment under my reference folder. I will never discard whatever I have seen or recorded in an experiment. I know that all the data is the most useful tool for me as an evidence to support my statement. (I have done a research project on the *Properties of Recycle Concrete Aggregates in Structural Use.*)

Under the “Isochronism” whereby the writer stated that whether Galileo has discovered all the properties at once or only over a period of time, I have a feeling that Galileo has discovered those properties over a period of time. This is because it is impossible for a person to discover all the properties of an object at once. Furthermore, Galileo has spent sometimes to conduct the experiment again and again to eliminate some variables that are independent from his experiment. Galileo also corrected some of his mistakes after he found out that his original statement was wrong; light-before-heavy is one of the examples. These evidence have shown that Galileo discovered those properties over a period of time not at once.

Personally, I feel that Galileo has teach us indirectly that the important of the experimental evidence to the formulation and reformulation of the general conclusions on certain aspects. Everyone has the potential to become a scientist as long as he/she has the capability to observe, listen and think. Let us begin our scientist dream with the curiosity in our mind! Explore or discover and learn new things like a kindergarten kid!

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EC.050 Recreate Experiments from History: Inform the Future from the Past: Galileo  
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